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ABSTRACT

Field tested in 27 schools and in grades four through twelve, this teaching unit stresses heritage education through the study of southern U.S. architectural styles for homes from the pioneer log structures to the 1950s ranch home. Each of the four lessons in this unit focuses around a slide presentation of 20 slides designed to fit into one 50-minute class period and is keyed to a teacher's narrative and a list of terms. The slides are reproduced on the narrative so the teacher can correctly identify the architectural conventions and styles that are presented. The four lessons are entitled "Pioneer Home", "White Columns," "Victorian Era," and "20th Century Homes." The lessons include the objectives, procedures for reinforcing the knowledge learned through the slide presentations, and "Visual Survey Forms" of hand-drawn architectural conventions and styles to be issued prior to the lesson. This unit also provides: (1) objectives, thinking skills, and basic concepts for heritage education; (2) how to use heritage education across the curriculum; (3) the purpose of historical architectural styles as a teaching tool; and (4) a 5-item bibliography. (DJC)

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# [HERITAGE EDUCATION LESSON PLANS AND SLIDE PRESENTATIONS]

by

Maurie Van Buren

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[van Buren, Maurie] 11/4/88-6

I have gained quite an interest in architecture in the last couple of years since learning some of the basics Now that I know something about it, I apply my knowledge practically everywhere I go For instance, when I see an old structure I look at the characteristics of the building and determine what kind of house or structure it is and the date it was built This is something I really enjoy and will probably use the rest of my life.

Amy McLean

Heard High School
Student

HERITAGE EDUCATION

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## INTRODUCTION

Heritage education is the study of historical development with regard to economic, social and cultural factors. Historic homes are fantastic teaching tools because they are the physical expression of lifestyles of the past. They express the age which they were created reflecting technology, communication, fashion, materials and climate. A home illustrates the wealth, character, dreams, and needs of the people it was built to shelter.

Heritage education is not a new subject to be added to the already highly specialized curriculum. This unit is a uniquely rich teaching tool which integrates principles of several subjects such as: history, sociology, science and math, geography, economics, language arts, political science, art, and home economics.

In this unit, students will interpret local buildings in terms of social history, architectural style, construction techniques, and landscape features. Students are undergoing an educational process which prepares them for their future roles in society. Knowledge of architectural heritage will help students develop a sense of responsibility for the conservation of their local heritage.

This teaching unit has been field-tested in 27 schools, grades 4-12. It was developed by Heritage Education Specialist, Maurie Van Buren. The content of the slide lessons is limited to domestic buildings because they are a form of architecture with which all students have direct experience.

The four slide lessons (Pioneer Homes, White Columns, Victorian Era, and 20th Century Homes) chronologically illustrate the development of southern architecture from log structures through the ranch style. Each lesson consists of twenty slides designed to fit into one 50-minute class period. The slides are keyed to a teacher's narrative and a list of terms. These slides are a practical teaching tool because they allow the teacher flexibility to adjust the lesson according to the interest and ability of the class. A slide lesson can easily and inexpensively be updated and modified.

These slide lessons can be adapted for use in middle school through college and adult education. For younger students each slide lesson can be broken into one week of classes, and for older students the lesson can be taught in one class. Teachers are encouraged to supplement these lessons with local slides if they wish. Additional lesson plans are provided to supplement the slide lessons. If possible the class work should be followed by field work.

## OBJECTIVES

The basic objectives of this Heritage Education Unit are to teach students:

About historical development with regard to economic, social, and cultural factors;

About chronology and the significance of major events and movements in American and world history;

About the interdependence of local history with state, national, and international history;

About chronology and the impact of technical advances;

About the interdependence of people and economic systems;

About the impact of communication and transportation;

About the role of class structure and ethnic groups;

About the relationship between past and present;

How people adapt to and modify their environment;

How the values of a society are reflected through the arts;

How society changes over time;

How home and family interact;

About the importance of community.,

## THINKING SKILLS

This heritage education unit has been designed to exercise and develop student skills in areas such as reasoning, gathering and processing information, problem-solving, interpreting and analyzing data, social participation, and creative application of knowledge. Bloom's Hierarchy of Thinking Skills has been used as a guide in the development of the questions and activities. The six levels of Bloom's Hierarchy of Thinking Skills are: knowledge, comprehension, application, analysis, synthesis, evaluation.

## CURRICULUM

Aspects of Heritage Education are evident in many subjects:

### History
Cause and effect
Conflict and consensus
Sequence
Change
Chronology
Community
Development of ideas and technology

### Sociology
Rules, values, and conventions of society
Issues of health and sanitation
Understanding cultural differences
Influence of media
Individuality and privacy
Problems of housing

### Geography
Regions and boundaries
Resources and building materials
Climate and natural resources
Distribution and patterns
Settlement patterns
Cultural patterns and influences
Relationship between natural and built environment

### Political Science
Growth of social power
Planning and zoning
Effects of government on locality and individual
Historic preservation and law
Special interest groups

### Economics
Mortgages
Real estate investments
Speculative development
Tourism
Creation and allocation of wealth and resources
Economic class structure

Language Arts and English
Impact of communication
Advertisements
Debating
Vocabulary
Researching
Speaking
Listening
Reporting
Writing

Science and Mathematics
Awareness of materials
Awareness of properties
Awareness of phenomena
Growth and change
Patterns and relationships
Measurement, Symmetry
Observing and recording
Identification
Classification
Testing hypotheses
Impact of technology
Relationship between form and function

Art
Aesthetic response
Design
Creative potential
Architectural styles
Visual sensitivities
Similarities and differences
Form and function

Home Economics
Home and family values
Home planning and construction
Home furnishing and decorating
Home maintenance

# HISTORIC HOMES AS TEACHING TOOLS

Traditionally students learn to read and interpret books but are not taught how to read and interpret the everyday physical reality which surrounds them. Figuratively speaking, the built environment can be read in the same way as a book. In the three-dimensional book of architectural heritage, architectural terms are the "words," styles are the "chapters," lifestyle and social history are the "plot," landscape is the "setting," and construction techniques are the "grammar" of the book.

## Social History

One of the easiest ways to enjoy architectural heritage is to study lifestyles of the past. Students should be encouraged to "read" the social history of a building. How was it heated? How much privacy did the inhabitants have? Architecture can be brought to life with amusing stories about a building's inhabitants. Homes can illustrate the dramatically different lifestyles of the wealthy and the poor. A historic building and its details tell a story about lifestyles of the past in a direct way.

## Styles

Identifying architectural styles is an activity based on observing a wealth of information and selecting features which fit into a category. It is a way to classify the built environment into a pattern of sequence which has some meaning. An effective way to convey the concept of architectural styles is to illustrate their application on common buildings. Point out features characteristic of a particular style.

Local structures do not exist in a cultural vacuum; they are examples of regional interpretations of national and international styles. Architectural pattern books and later magazines were important vehicles for bringing new and uniform styles to all areas of the country. Sears and Roebuck even offered pre-fabricated houses which could be ordered from a catalogue.

Buildings evolve and styles often develop as a reaction against a preceding style or as a look back in time to revive an earlier one. Historic buildings are not static; they change and evolve over time to reflect different styles popular during various eras of their existence. An illustration of a building which is an amalgam of stylistic features encourages students to determine which features do not belong.

## Terms

Architecture, like any subject, has its own esoteric language. Students of architectural heritage should learn to identify features by a recognized term. A basic vocabulary must be understood in order to "read" the built environment. Recognition and identification are skills which must be developed in order to correctly interpret architecture. The capacity to name an architectural feature involves the ability to visually distinguish it.

The best way to teach architectural terms is by visual or graphic representation instead of verbal definition. Point out a feature on a slide, label it, and then describe its function or appearance. Once a term is introduced, it should be repeatedly identified in a variety of examples. Repetition is one way to ensure that a term is remembered; humor or an interesting description of an image are others.

A practical method for reinforcing the link between the visual and verbal identification of architectural features is to list trems to be covered in a lesson on the chalkboard.

## Construction Techniques

To understand architectural heritage, students must have a knowledge of construction methods and building materials. This information links form with function. Studying the relationships between climate, natural resources, and building technology will encourage students to observe the familiar with new insight. Analysis of the function of an architectural feature encourages the student to speculate, to weigh evidence and ideas, and to hypothesize.

Construction methods often reflect local traditions of craftsmen and the availability of building materials. Technological advances and ease of transportation allowed the introduction of mass-produced materials. Students can compare the mass-produced materials with local handcrafted materials and the advantages of each in terms of cost, time, comfort, and aesthetics.

## Landscape Features

The study of architecture is complemented by the study of landscape features. Buildings should be placed in their context whether they are located in rural areas, urban areas, or planned suburban neighborhoods. The setting of a house and its landscape features help students interpret man's relationship with nature.

## BASIC HERITAGE EDUCATION CONCEPTS*

1. Change - Buildings, like people, continually evolve to reflect new surroundings, purposes, needs, tastes, and events.

2. Culture - People have distinctive customs, skills, ideas, arts, and values. Objects such as buildings are an expression of the culture, telling us something about the builders and owners.

3. Context - Buildings, architectural styles, and neighborhoods are the products of a unique interaction of time and place. A structure's surroundings, both natural and man-made, affect it.

4. Function - How a structure's interior and exterior space is used dictates the size and placement of rooms, hallways, climate controls, accessibility, etc. As a building's function changes, so does the building.

5. Form and Shape - The contours, outline, or pattern of a building is referred to as its "shape" or "form." Curved lines represent "soft" form as opposed to straight lines and right angles. Form affects the feeling a building evokes.

6. Scale and Proportion - The actual size and measurements of a building and the balance between elements of the same structure represent "scale" and "proportion." Altering the ratio of the height to the width affects the scale and proportion and can also reflect the builder's taste.

7. Material - "Material" refers to the substance used to construct a building, such as wood, brick, steel, concrete, marble, mud, or plastic. Factors influencing the choice of materials include availability, technology, cost, and taste.

8. Space - The area enclosed by a building is its "space." The size and dimensions of the space are sometimes determined by function. Differing types of space include formal, public, or intimate.

*Material for the "Basic Concepts" portion of the guide was drawn from Daniel C. Le Clerc, Architecture as a Primary Source for Social Studies, Series 2, no. 5, National Council for the Social Studies, 1978.

## SOURCES OF ADDITIONAL INFORMATION

### For Local Research:

Census Records, Deed Research, Courthouses, Diaries, Family Bibles, Genealogical Societies, Historical Societies, Letters, Old Photographs, Old Post Cards, Local and County Histories, Neighbors, Newspaper Files-especially anniversary issues, Tax Maps, Older People, City Directories, Telephone Directories, Sanborn Fire Insurance maps, National Register Nomination Forms (located at the State Historic Preservation Office).

### Books

John Blumenson, Identifying American Architecture-A Pictorial Guide to Styles and Terms, 1600-1945. Nashville, Tenn: The American Association for State and Local History, 1977

Andrew J. Downing, The Architecture of Country Houses, 1850. New York: Dover, 1969.

Mary Mix Foley, The American House. New York: Harper & Row, 1980.

Barbara J. Howe, et al., Houses and Homes: Exploring Their History. Nashville, Tenn: The American Association for State and Local History, 1987.

Virginia and Lee McAlester, A Field Guide to American Houses. New York: Knopf, 1984.

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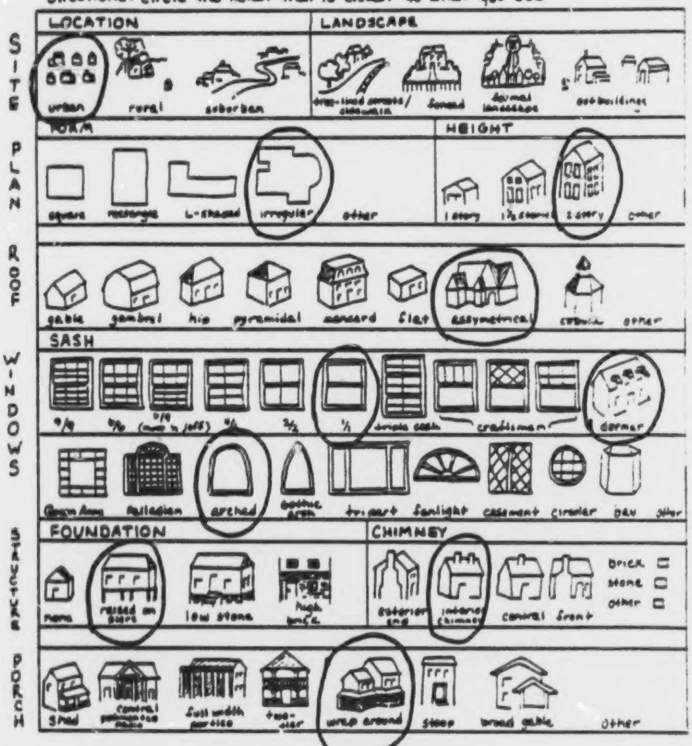
## VISUAL SURVEY FORM

directions: Circle the detail that is closest to what you see


SITE
LOCATION
[✓ urban]
rural
suburban
LANDSCAPE
tree-lined streets/ sidewalk
fenced
formal landscape
outbuildings
PLAN
FORM
square
rectangle
L-shaped
[✓ irregular]
other
HEIGHT
1 story
1½ stories
[✓ 2 story]
other
ROOF
gable
gambrel
hip
pyramidal
mansard
flat
[✓ assymetrical]
cupola
other
WINDOWS
SASH
9/9
9/6
6/6 (man 'n jeff)
6/1
2/2
[✓ 1/1]
triple sash
craftsman
[✓ dormer]
Queen Anne
Palladian
[✓ arched]
gothic arch
tri-part
fanlight
casement
circular
bay
other
STRUCTURE
FOUNDATION
none
[✓ raised on piers]
low stone
high brick
CHIMNEY
exterior end
[✓ interior chimney]
central
front
brick ☐
stone ☐
other ☐
PORCH
shed
central entrance
full width portico
two-tier
[✓ wrap around]
stoop
broad gable
other

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Atlanta, Georgia

## LESSON PLANS

## LESSON #1: HOW TO USE THE SLIDE LESSONS

Objectives: To teach students to understand and appreciate cultural heritage through the study of homes.

Materials: Slide lesson, projector, screen, blackboard, plain white paper.

Procedures:

List terms on the blackboard and set up equipment.

Ask students to copy terms from the board. When they hear the term in the slide lesson, they should write the definition in their notes. Students should be told that they will be tested at the end of the lesson.

Show slides and read the corresponding teacher's narrative. New terms and activity suggestions are underlined in the narrative. Invite students to point out features on the slides. Encourage students to hypothesize and brainstorm and ask questions. You may want to supplement the slide lesson with slides of local buildings.

Review the slide lesson by quickly showing each slide again and ask the students questions about each. Again ask students to identify features on the slides in the review.

To test students: distribute paper and ask students to write their name at the top and their age or class. Then instruct the students to draw, from memory, one style studied in that lesson and label all the features they can remember. Tell them they will not be judged on how well they can draw, but on how much they can remember. It is best to discourage use of rulers and to encourage spontaneity. Never underestimate how much detail students can remember.

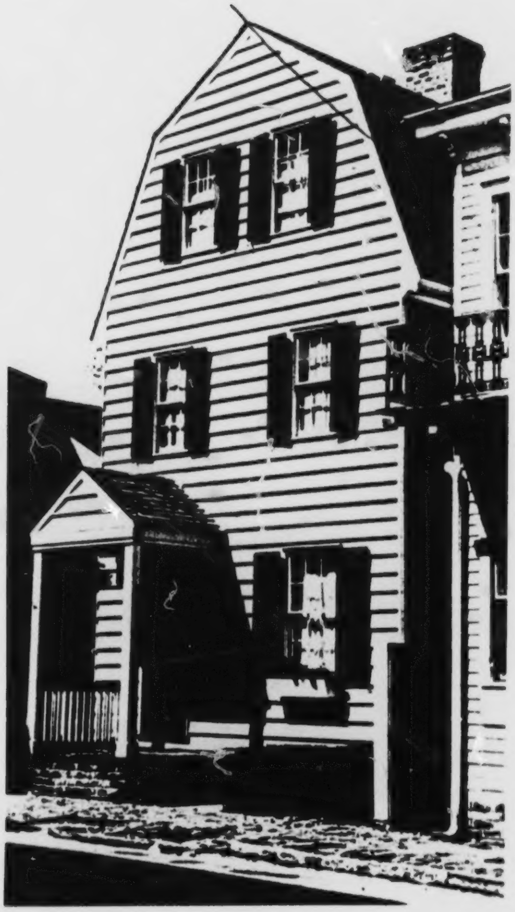
Drawing is visualized thinking. It is a way for students to express their knowledge in a creative way. It also provides you, the teacher, with immediate feedback on how well the material was conveyed to the class. Student drawings are often quite good. You may want to display them in the hall or cafeteria, or make a calendar of student drawings, or make note cards from them. We would appreciate it if you would send Historic Preservation Consulting copies of outstanding drawings.

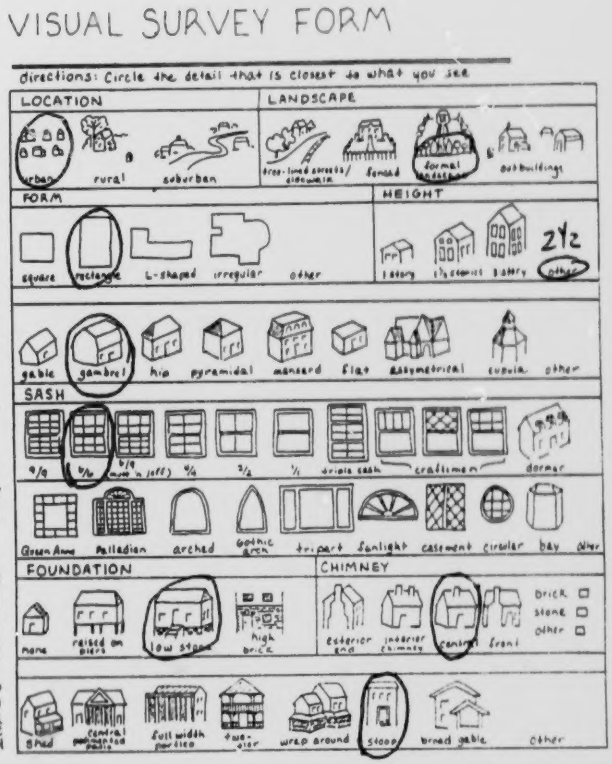
## LESSON #2: VISUAL SURVEY FORM

Objectives: To teach students to observe and identify environmental features and to understand their significance, and to "read" buildings.

Procedures: Give students copies of the Visual Survey Forms found at the beginning of each slide lesson. A filled-out sample is shown below. Using sketches, slides, or photographs of houses, teach students how to use the form. Instruct them to circle the features on the form which are closest to those which they see on the buildings. On the back of the form, students can sketch the building or a detail which is not included on the form.

Next, take a walking field trip in a neighborhood. At each building ask a pair of students to fill our their survey forms. Compare results.





VISUAL SURVEY FORM

directions: Circle the detail that is closest to what you see

SITE
LOCATION: [✓ urban] rural suburban
LANDSCAPE: tree-lined streets/sidewalk fenced [✓ formal landscape] outbuildings

PLAN
FORM: square [✓ rectangle] L-shaped irregular other
HEIGHT: 1 story 1½ stories 2 story [✓ other] 2½

ROOF: gable [✓ gambrel] hip pyramidal mansard flat assymetrical cupola other

WINDOWS
SASH: 9/9 [✓ 6/6] 6/9 (mom 'n jeff) 4/4 2/2 1/1 triple sash craftsmen dormer
Queen Anne Palladian arched Gothic arch tripart fanlight casement circular bay other

STRUCTURE
FOUNDATION: none raised on piers [✓ low stone] high brick
CHIMNEY: exterior end interior chimney [✓ central] front
brick ☐
stone ☐
other ☐

PORCH: shed central pedimented patio full width portico two-tier wrap around [✓ stoop] broad gable other

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## LESSON #3: COMMUNITY HERITAGE

Objectives: To teach students why it is important to preserve historic buildings and to learn the process of historic preservation.

Materials: Local histories, old post cards, old newspapers, old photographs, slides.

Procedures: Invite a local historian who is knowledgeable about and involved in historic preservation to come to class. Ask the historian to discuss the following:

*Explain why buildings in the community are an important part of its heritage.

*Show old photos of buildings which have been destroyed. Explain why they were destroyed, and what replaced them.

* List the reasons why buildings are destroyed. Neglect? Too expensive? On valuable land? Old-Fashioned and not useful? (ie.many outhouses were demolished when homes had indoor plumbing)

* Describe the National Register of Historic Places and identify local buildings on the Register.

* Discuss the benefits of historic preservation, such as tourist development, community pride, or economic revitalization.

Follow-up Activity: A mock classroom debate where half the students support the preservation of a particular building and the other half do not.

## LESSON #4: NEIGHBORHOODS

Objectives: To help students understand the concept of "Neighborhood" and to teach them to "read" social, economic, and ethnic history.

Materials: City map and/or country map; Sanborn Insurance Maps

Procedures: This lesson is a discussion. Use the questions as a guide but adapt as you need to.

Questions:

1. What constitutes a neighborhood? What are its boundaries? Rivers? Railroads? Highways? Streets? Parks? Commercial or Industrial Developments?

2. How are neighborhoods named? List the neighborhoods of your students on the blackboard and discuss the origins of the names. How are streets named?

3. How can you "read" the social, economic, and ethnic history of a neighborhood? (by the size of the houses, ornamentations, landscaping, and maintenance?)

Reinforcing Activity: Ask a well-established realtor to come to class to discuss the importance of housing to the overall economy.

## LESSON #5: THE IMPACT OF COMMUNICATION ON FASHION

Objective: To teach students about the various forces affecting taste in housing, landscaping, and interior design.

Materials: Old magazines, current magazines, home sections from newspapers, and home design catalogues.

Procedure: Ask students to find and bring to class pictures of their favorite styles of buildings, landscaping, and interior design.

Questions:

1. How does television influence taste, especially in interior design and landscaping?

2. How do home decorating magazines and home sections of newspapers influence home interiors?

3. How do movies affect taste in homes?

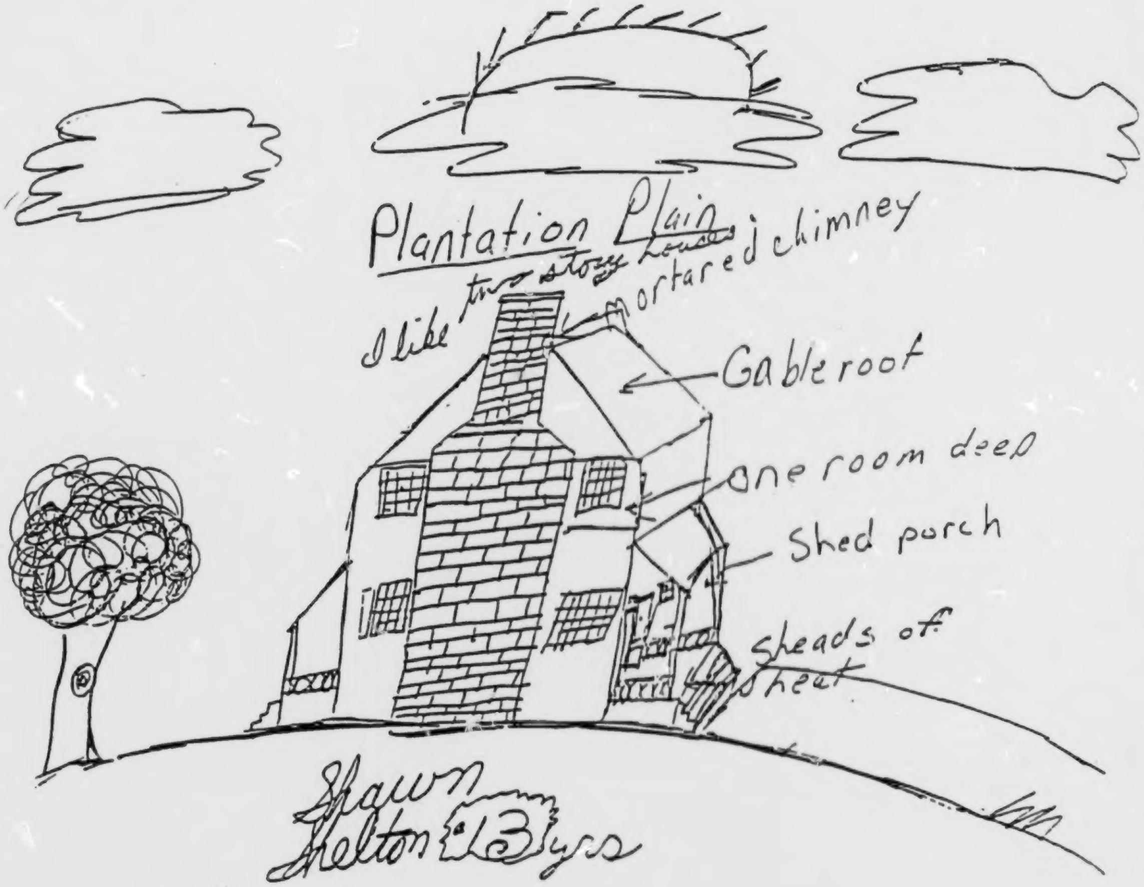
4. How does a family building or buying a home decide which style house they prefer?

5. Why are home tours and open houses so popular? How to people share ideas in home decoration?

6. How do architects and builders influence what is built and how it is built?

7. How does advertising affect taste in style and color? Look at a magazine and list the colors popular in homes today.

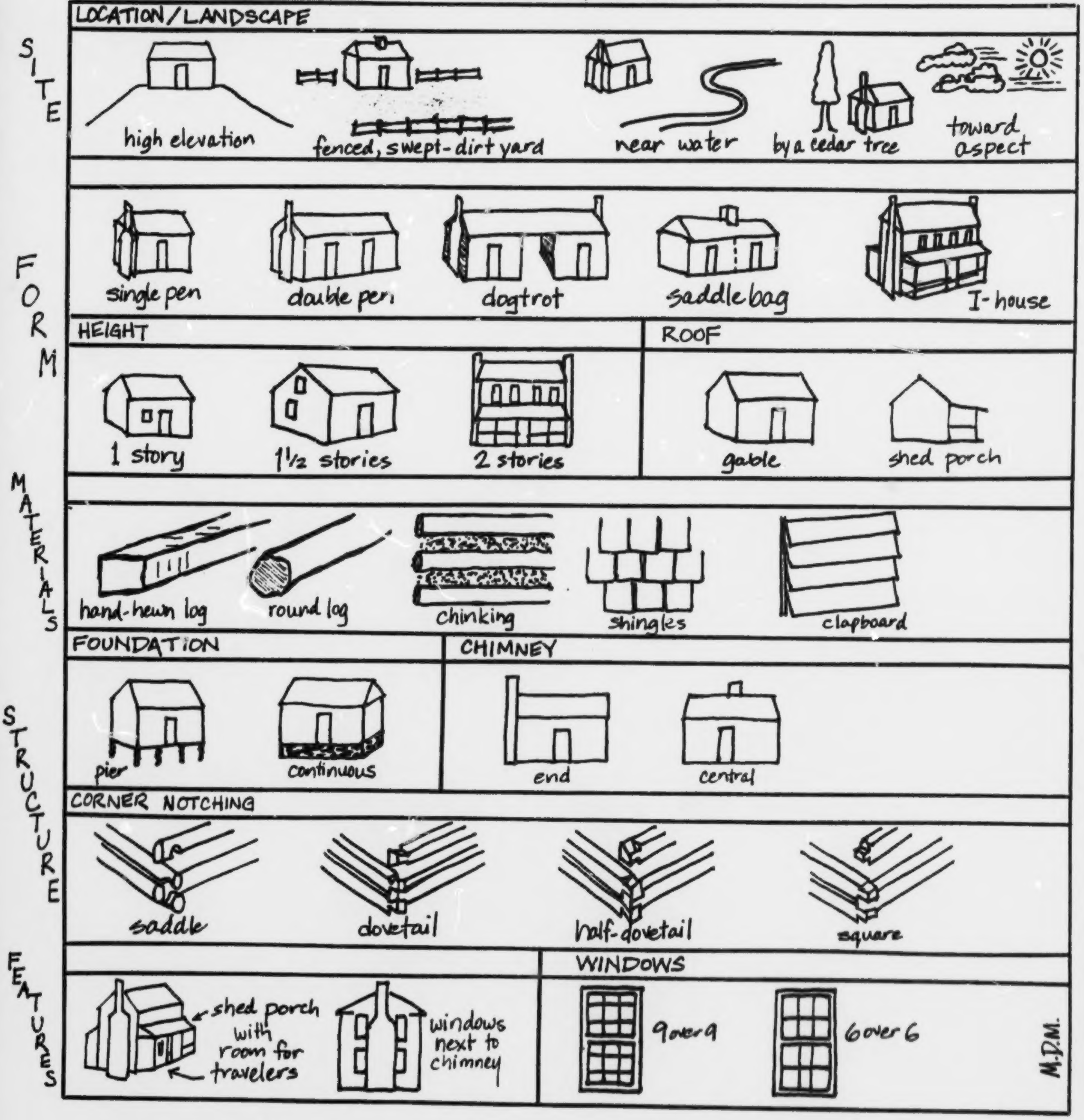
8. How does communication make the world look more the same?


Plantation Plain
I like two story house
mortared chimney
Gableroof
one room deep
Shed porch
sheads of sheet
Shawn Shelton 13yrs

# LESSON ONE

# VISUAL SURVEY FORM: EARLY VERNACULAR

Directions: Circle the details that are closest to what you see.


SITE
LOCATION/LANDSCAPE
high elevation
fenced, swept-dirt yard
near water
by a cedar tree
toward aspect
FORM
single pen
double pen
dogtrot
saddle bag
I-house
HEIGHT
1 story
1½ stories
2 stories
ROOF
gable
shed porch
MATERIALS
hand-hewn log
round log
chinking
shingles
clapboard
STRUCTURE
FOUNDATION
pier
continuous
CHIMNEY
end
central
CORNER NOTCHING
saddle
dovetail
half-dovetail
square
FEATURES
shed porch with room for travelers
windows next to chimney
WINDOWS
9 over 9
6 over 6
M.D.M.

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Atlanta, GA 30307

## SLIDE LESSON I: PIONEER HOMES

## EXPLORATION & SETTLEMENT PERIOD

Terms to list on the blackboard:

wattle & daub

hand hewn

sills & sleepers

pier foundation

chinking

corner notching:
- 1/2 dovetail
- saddlebag
- square

heavy timber frame construction

mortise & tenon

### TYPES

single-pen

double-pen

dogtrot

I-house or "plantation plain"

## I. SLIDE #1

The land we now know as America was originally occupied by Indians. Do you know the name of the Indians who lived in this area? As America expanded westward, the Indians were forced off the land.

Can you imagine what this land looked like to the first white settlers? Much of the land was covered in forest. Early settlers knew all about trees and the various properties of wood. They knew that cedar was resistant to insects, that pine was soft and easy to cut, and that oak was hard and resistant to rot. Because it was abundant, wood became the major building material in many areas. The early settlers knew that wood had to be seasoned so that it would not warp. They may have learned from the Indians to girdle the trees. The bark was removed from the base of the tree causing the tree to slowly die; later when it was cut, the wood was partly seasoned.

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## I. SLIDE #2

Each Indian tribe had its own building tradition. The Indians built homes from materials available on the site. In arid, treeless areas, they built homes from mud and animal hides. In mountainous areas, they carved homes from the stone. Most land east of the Mississippi was heavily wooded, and, in these areas, Indians built log structures. They also made homes by weaving twigs together and covering them with mud. This process is called wattle and daub. The wattle refers to the twigs, and the daub is the mud covering. Indian homes often had dirt floors.

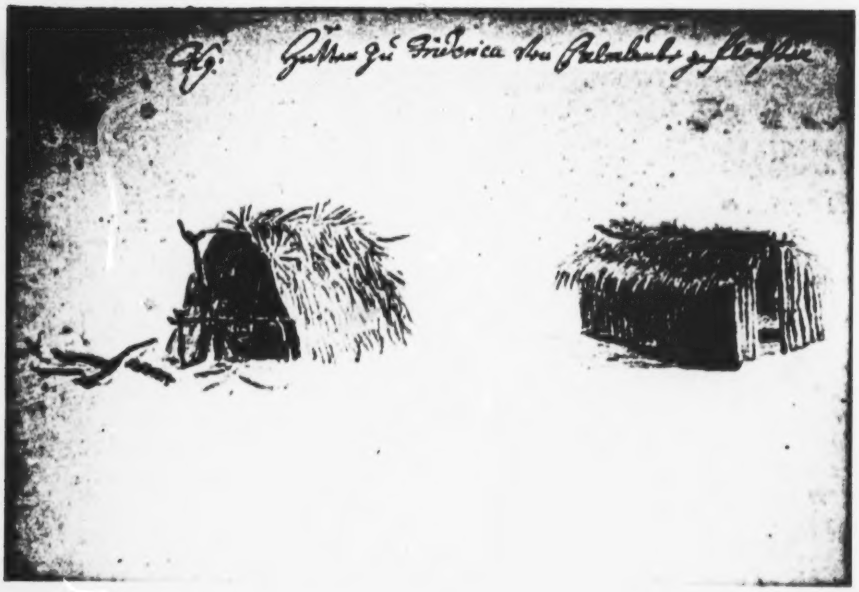


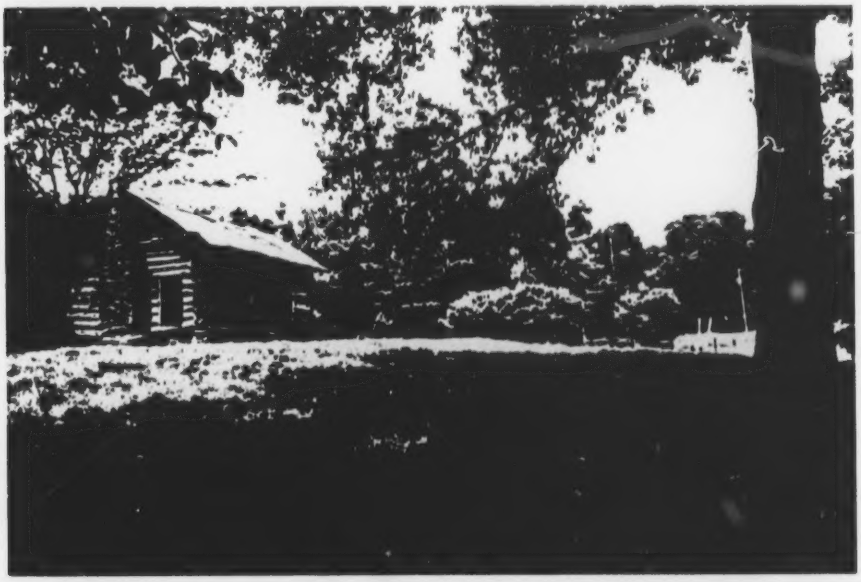
Fig. Hütten zu Friderica von Palmlaub geflochten

## I. SLIDE #3

After the Indians relocated or were removed from the land, white people of European descent settled the land. As they moved into the wilderness, they brought their own building traditions. Log cabins seem to us as American as apple pie. Folk geographers trace their history back to the Swedish immigrants who settled around Delaware. In a land covered with virgin timber, log construction became a natural way for pioneers to build their homes, just as the Indians had before them.

One of the most important factors in setting up a home in the wilderness was choosing the best site. If you were a settler who had purchased hundreds of acres of undeveloped land, where would you build your house? Near water. On a high elevation so that you would not be flooded. Near hardwood trees for shade. Near fertile crop land.

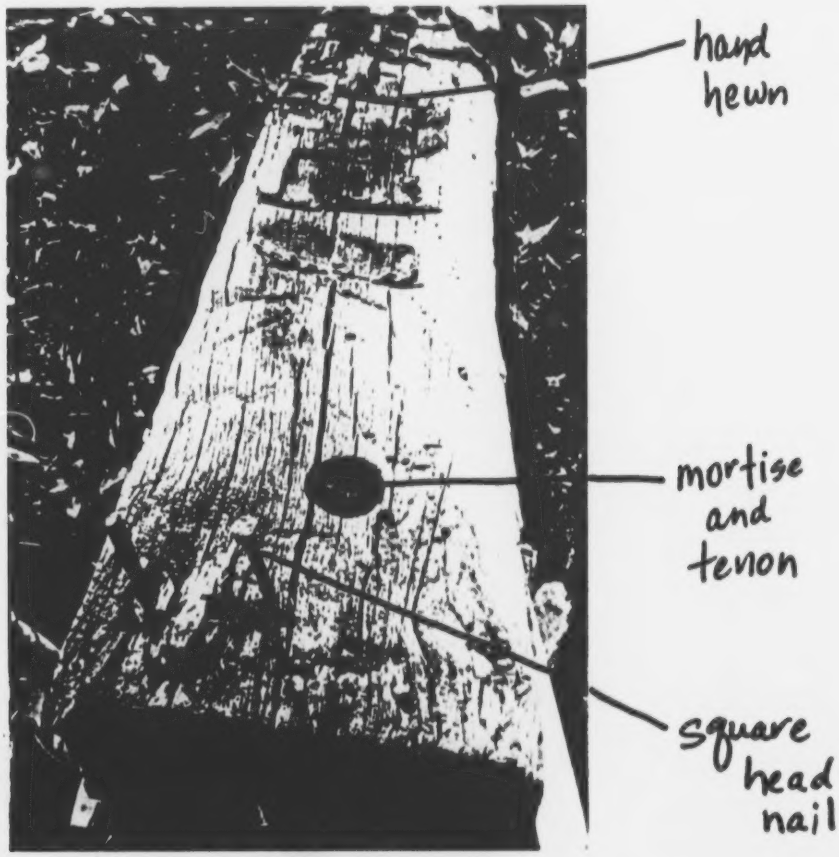
Instead of orienting their homes toward a road, it was more important for early settlers to orient their homes toward aspect, so the sun would warm the house in the winter and the breeze would cool it in the summer. Early settlers were self-sufficient, and did not often need to travel by road. Later, when roads improved and the area became more populated, it became important to build a house facing a road.



## I. SLIDE #4

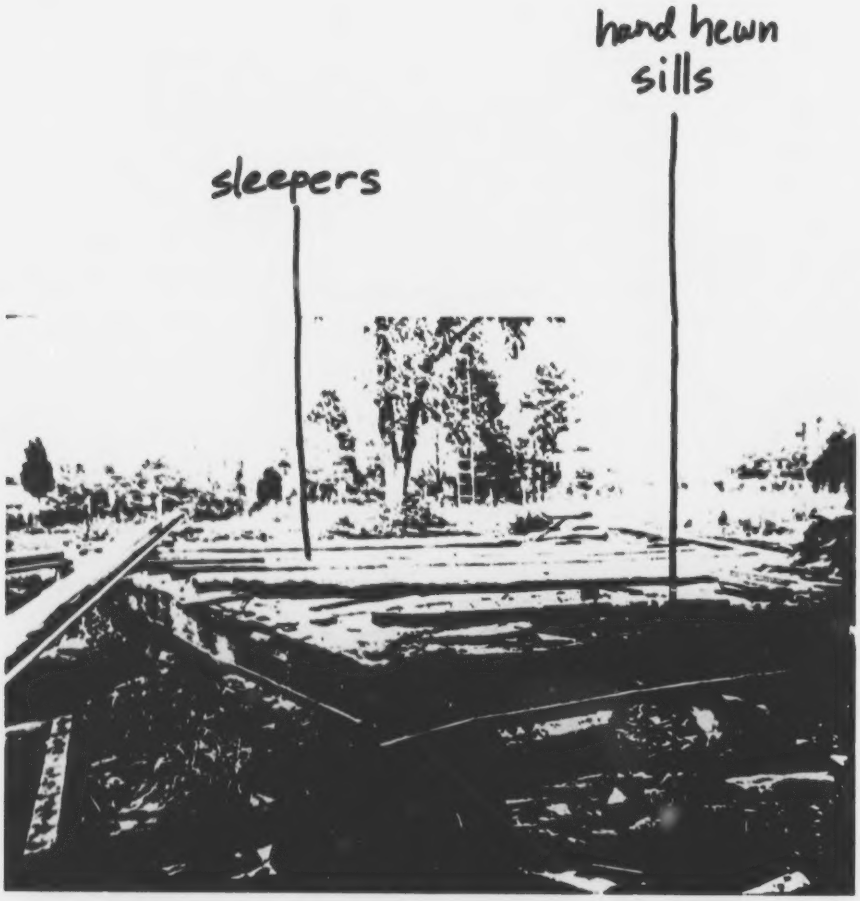
Once a good site is found, construction of a log house can begin. The first step is to transform a round log into a square one. This is done by a process called hand hewing. An axe is used to score the side of a round log; chops are made along its side every few inches, and then the wood is cut away, creating a flat surface. The same process is done on all four sides so that the heart of the wood is boxed. It is easy to tell if wood is hand-hewn... just look for the chop marks.

This slide illustrates three early construction features: hand hewn logs, mortise and tenon joints, and square-head nails. Mortise and tenon is just a fancy way of describing wood which is held together by wooden pegs. The pegs were used instead of nails. The earliest nails were made by local blacksmiths and have square heads. Today, most nails are machine made and have round heads.



## I. SLIDE #5

Four hand-hewn logs are joined at the corners to form a rectangle; this is the base of the log house. These logs are called sills. The sills support the sleepers, the round logs which support the floor. Often the sills are made from oak trees for strength. Generally the walls are pine, which is softer and easier to work with.

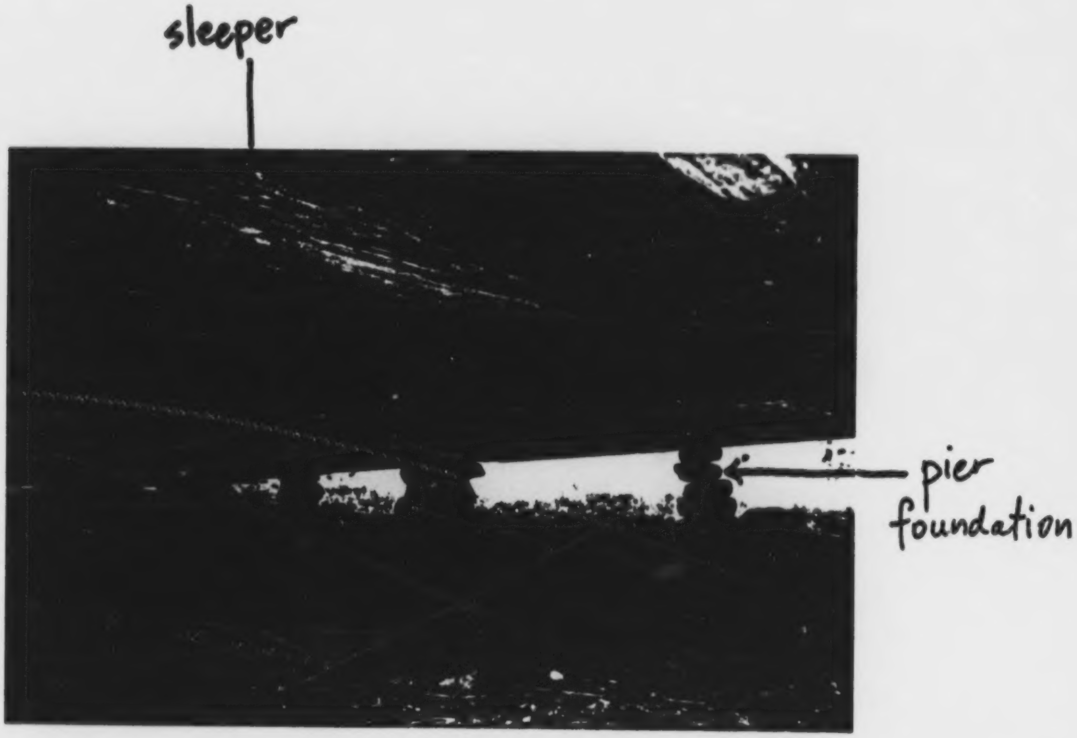


## I.SLIDE #6

The sills sit on piers of fieldstone. This is called a fieldstone pier foundation. In the south, it is typical for early houses to be elevated on pier foundations.

Can you think of some reasons for this? Sills need to be kept off the ground to prevent rot. A pier foundation allows air to flow under the house, thereby keeping it cooler. Land was rarely flat, and, without the use of bulldozers, a pier foundation could easily conform to the slope of a site by adding a few more rocks on one side. The pier foundation provided a nice space under the house for storage or shelter for chickens. These are a few of the many reasons for having a pier foundation.

Identify the sills and sleepers in this slide.



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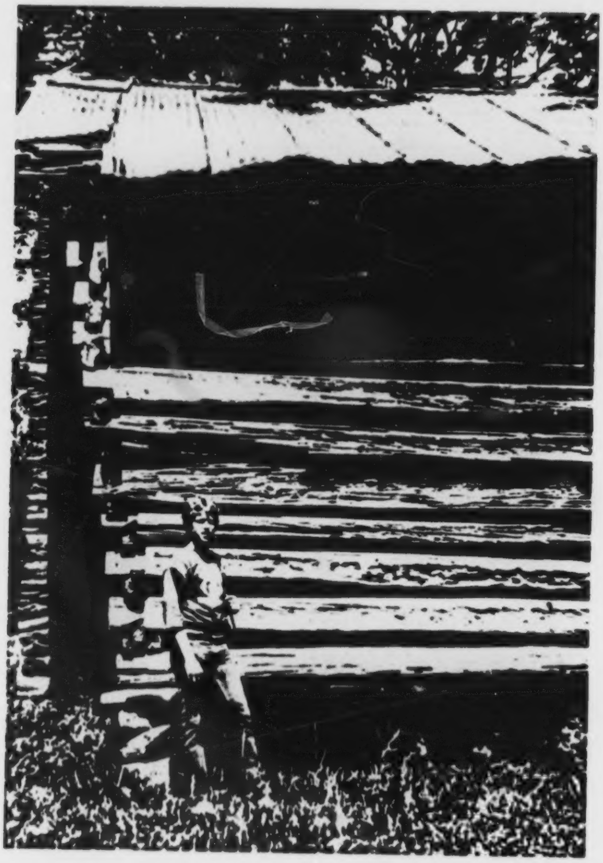
## I. SLIDE #7

The site has been selected. Trees have been hand hewn into logs. Sills, which form the base of the house, sit off the ground on fieldstone piers. The sleepers lie across the sills and support the floor. Next the walls must be built.

Walls are made of hand hewn pine logs laid horizontally. Each log can weigh several hundred pounds; they can be 17-21 feet long depending on the size of nearby trees.

How did the early settlers lift a log above the height of their head to build a wall? Remember, they were isolated and had few tools. They used one of the oldest methods of construction known to mankind; the Egyptians used it to build the pyramids-the inclined plane method. Several poles were placed at a diagonal against the wall, and, with the assistance of a mule or horse, logs were rolled up the poles to form part of the wall.

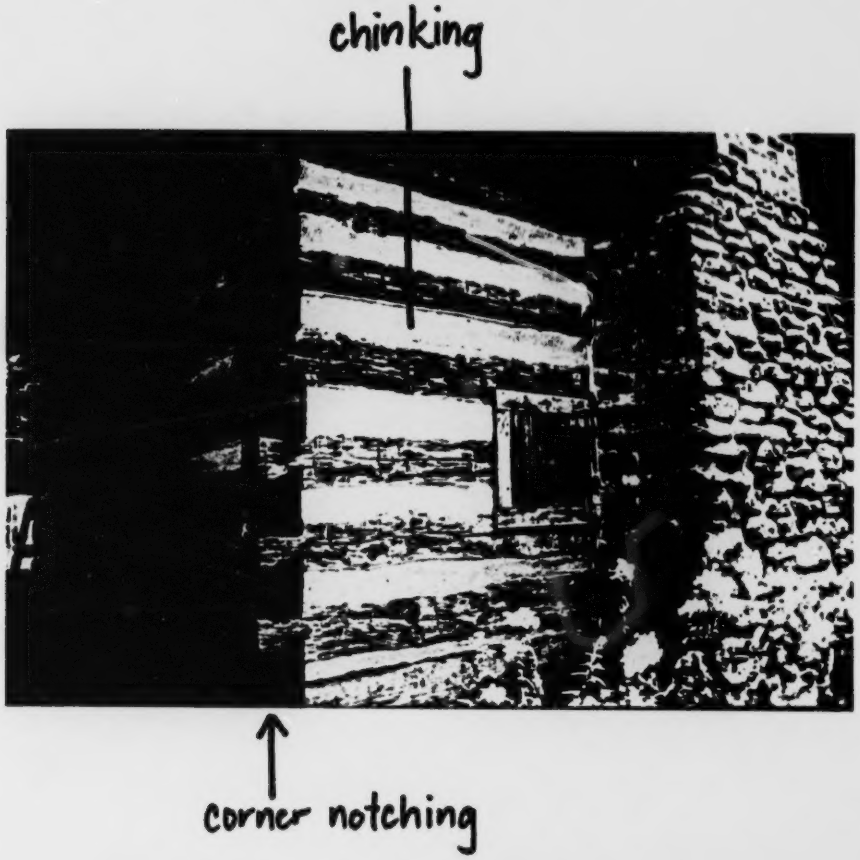


## I. SLIDE #8

Walls often have open spaces between each log. These gaps in the wall were chinked, or filled with clay, stones, and leaves to make the house weatherproof in the winter. In the summer, the chinking was removed to allow for light and ventilation. Chinking was one way to make the house adapt to the southern climate and change with the seasons.

Window openings in log structures are usually located next to the end chimney. Most early log structures did not have glass windows. Because glass was expensive and difficult to transport along rocky dirt roads, oiled paper or animal skins covered the window. Often windows only had a shutter. Some people say the word window came from "wind hole" and dates from an era when they did not have glass. Later, we will learn how to date a building by looking at its glass windows.

Log walls are held together by corner notching. The ends of the logs are shaped to fit together like a handshake.



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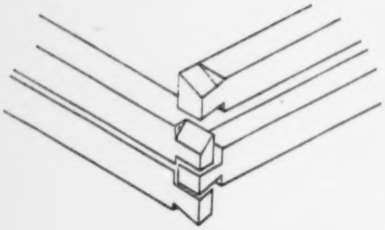
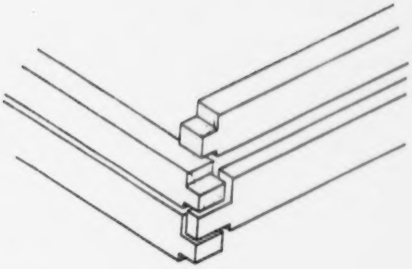
## I. SLIDE #9

There are several types of corner notching. Saddlebag notching is the easiest and quickest, but the least permanent kind of notching. The ends of the log jut out beyond the wall and can trap rain and moisture which causes them to rot.

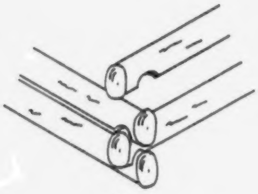
Notching types get their names from their shapes. A dovetail notch is flared like the tail of a bird. A half dovetail is flared on one side and flat on the other side. Square notching looks square. Half dovetail notching is one of the most common types in this area; it forms a tight joint and does not have ends which extend beyond the wall.



half-dovetail



square

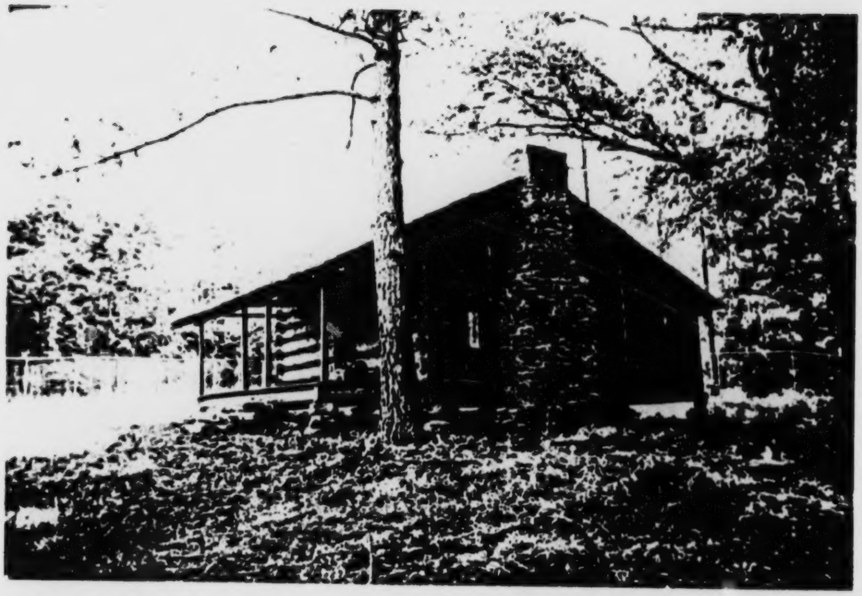


saddle

5

## I. SLIDE #10

Now that we have discussed log construction, it is time to examine the different building forms common to log structures. The most basic form of a log building is called a single-pen. A pen is a square or rectangular room-sized unit of measurement. A single-pen can be square with the door in the center, or oblong with the door off-center. They usually have a fieldstone chimney at the end of the house and a simple gable roof covered with wood shingles. These small houses offered very little privacy. Sometimes a single-pen would be divided into two rooms called hall-and-parlor. A loft in the roof area was often used for sleeping.



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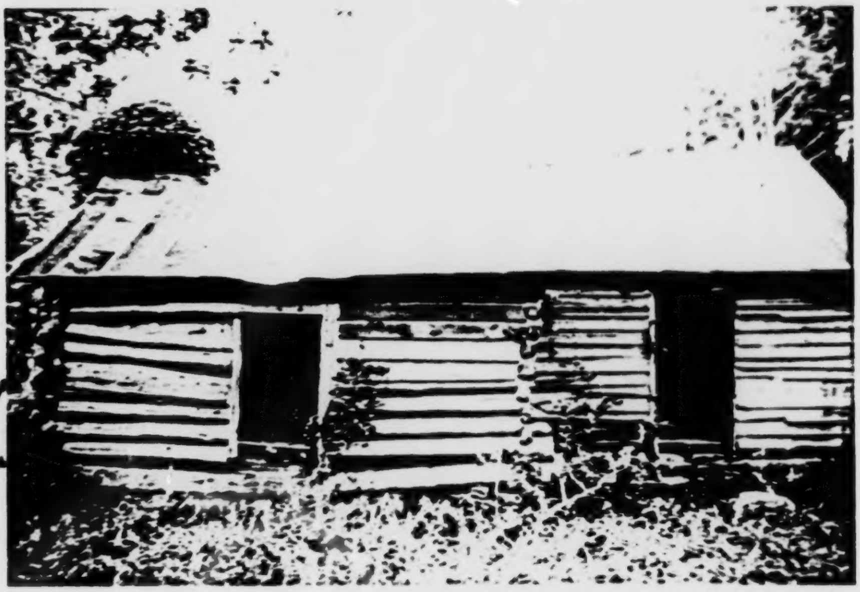
## I. SLIDE #11

When additional space was needed, a single pen could be enlarged by adding more pens. A single pen with another single pen adjacent to it is called a Double-pen. A double-pen has two front doors.

This is a slide of a log slave house. What kind of corner notching does it have? Saddlebag. What does this tell you about this structure? Saddlebag notching is the quickest and easiest type of notching to make, but it is the least permanent type. The ends of the logs stick out and collect rain which causes them to rot. This tells us that slave houses were built quickly and were not built to last.

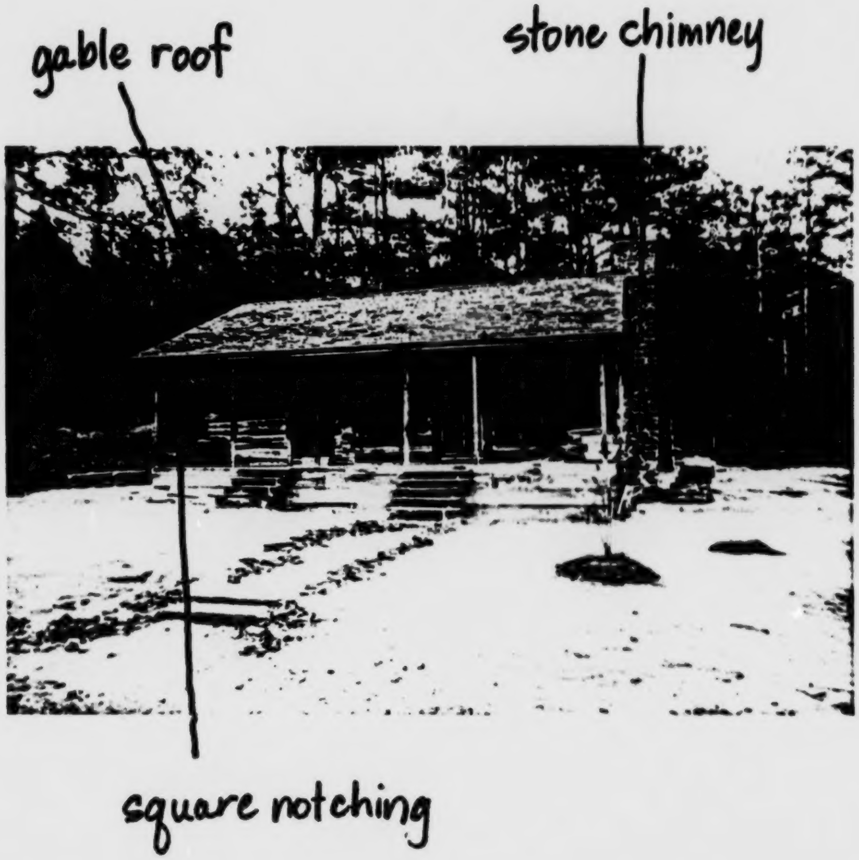


saddlebag notching

## I. SLIDE #12

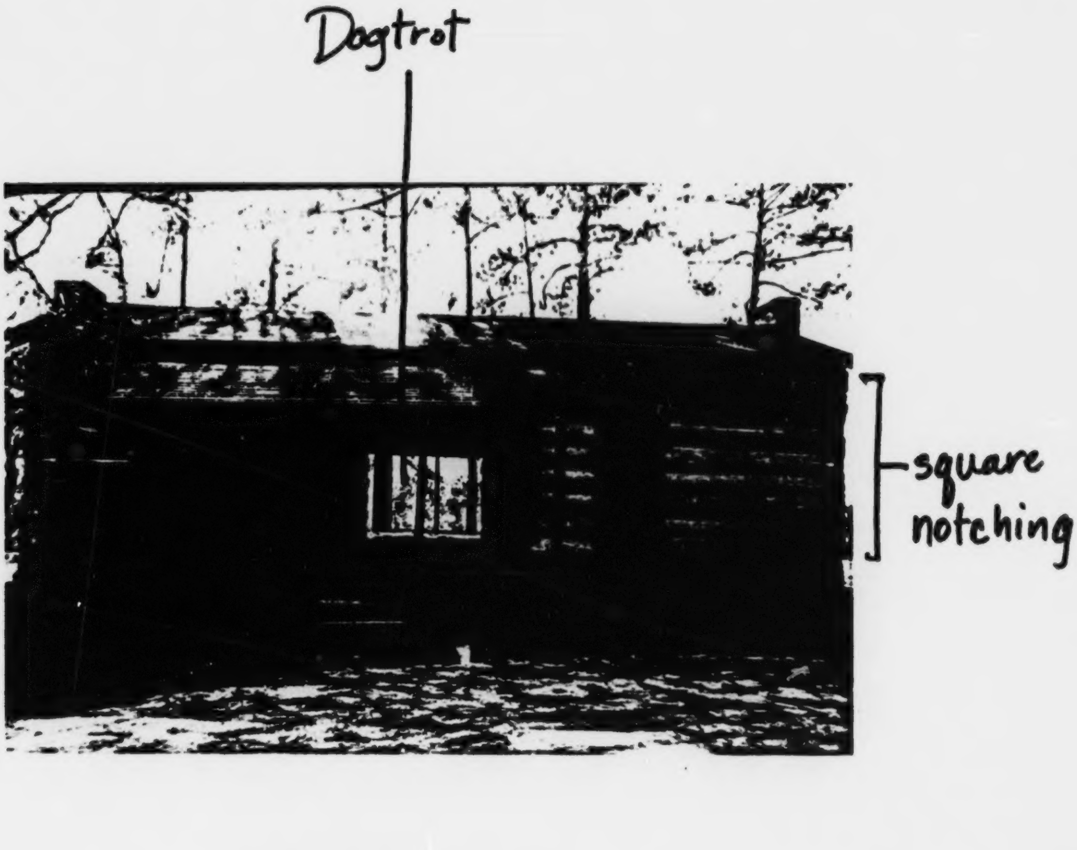
What type of log structure is this? Double-pen; it has two front doors. Identify features of log construction on this slide: gable roof covered with shingles, hand hewn log wall with chinking, square notching, exterior end stone chimney with window opening.

Why do you think someone would want a home with two front doors? Nobody knows the answer for sure. Churches often had two front doors, one for the men and the other for the women. We know that many early houses have separate stairs leading to the boys' sleeping room and to the girls' sleeping room. Maybe houses had separate front doors for the men and the women or maybe two families lived in one house. Maybe it was just fashionable.



## I. SLIDE #13

Double-pen is one way to expand a single-pen; another way was called a Dogtrot. A dogtrot is a single-pen plus another single-pen separated by an open breezeway but joined under one roof. It is called a dogtrot or possum-trot because animals were free to run through this opening. The dogtrot was popular in the warm climates because the opening was oriented to catch the breeze. Sometimes this opening was enclosed at a later date to form a central hall.



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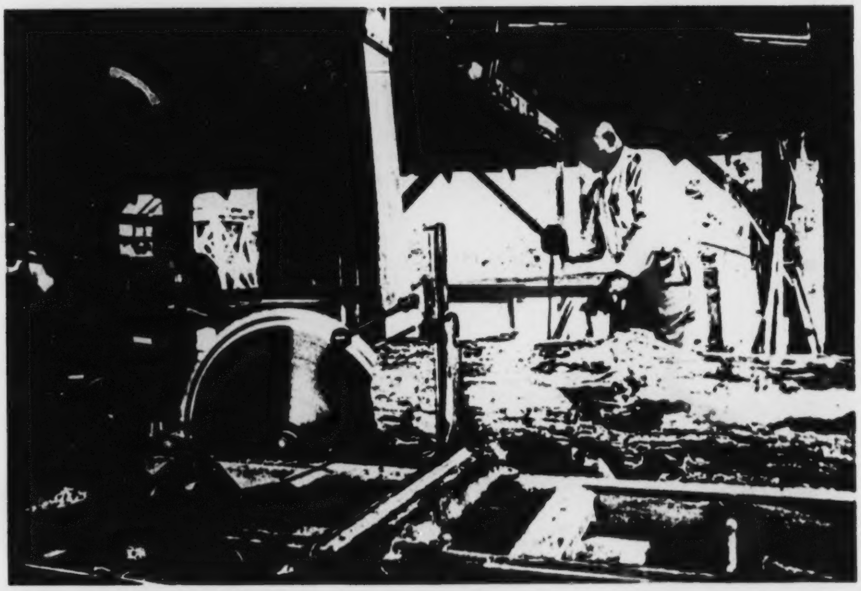
## I. SLIDE #14

The early settlers lived in their log homes until settlements were established and they were prosperous enough to build frame homes. When local saw mills were established, hewing logs by hand was no longer necessary. Lumber could easily and quickly be cut into thin pieces with a circular saw. Consequently logs became viewed as a primitive form of construction; many people covered the logs with clapboard to make their homes look fancy.

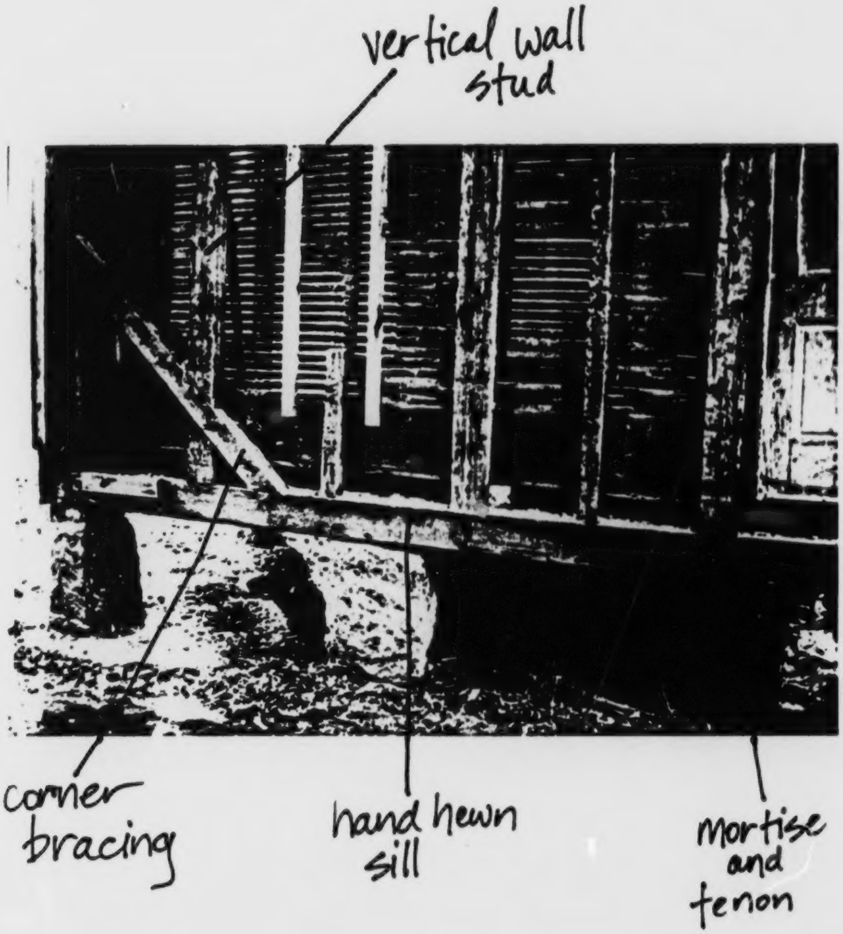
Saw mills made it possible for people to build frame houses with a technique called heavy-timber construction.



## I. SLIDE #15

Heavy-timber construction consists of hand hewn sills and corner posts with corner bracing, and vertical wall studs covered with clapboard. Look for the chop marks on the sills which tell you they are hand hewn. Notice how the vertical wall studs are joined to the sill with a wooden peg; remember this is called mortise and tenon. The clapboard on the exterior and the wall studs were cut in the lumber mill, not by hand. If you look closely, you can see the circular saw marks. The clapboard is attached to the house with square-head nails.

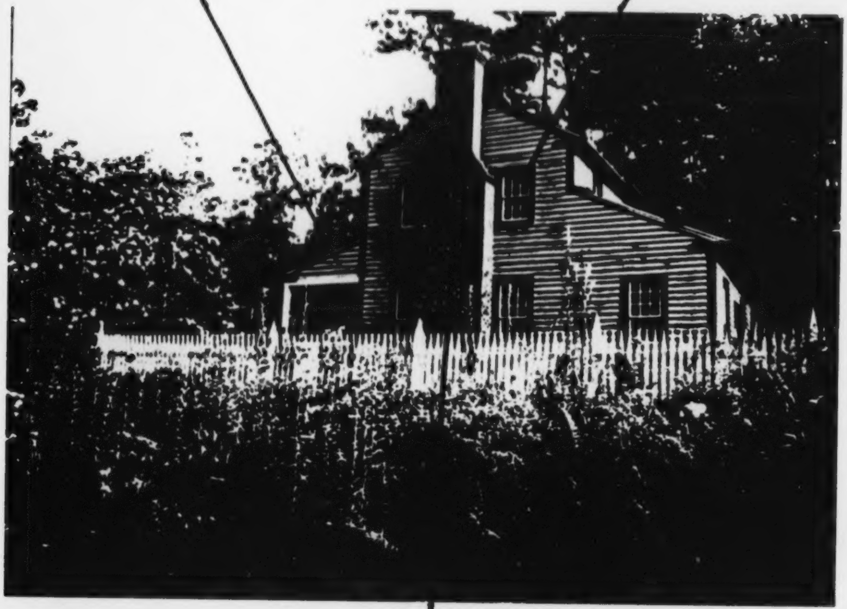
Heavy-timber construction has several advantages over log construction. Remember how difficult it is to build a two story log wall? The lightweight vertical wall studs used in heavy-timber construction make it easier to build 1 1/2 and 2 story houses. Frame buildings take less time to build and use less wood.



## I. SLIDE #16

Heavy-timber construction made it easier to build two story houses. If you take a double-pen and make it two stories tall, you have what is called the I-house or Plantation plain style house. An I-house is two stories high, two rooms wide and one room deep with a shed porch to the front and a shed porch to the rear. This house form became known as the I-house because geographers found that it was most common in states beginning with the letter "I" such as Indiana, Idaho, Illinois.

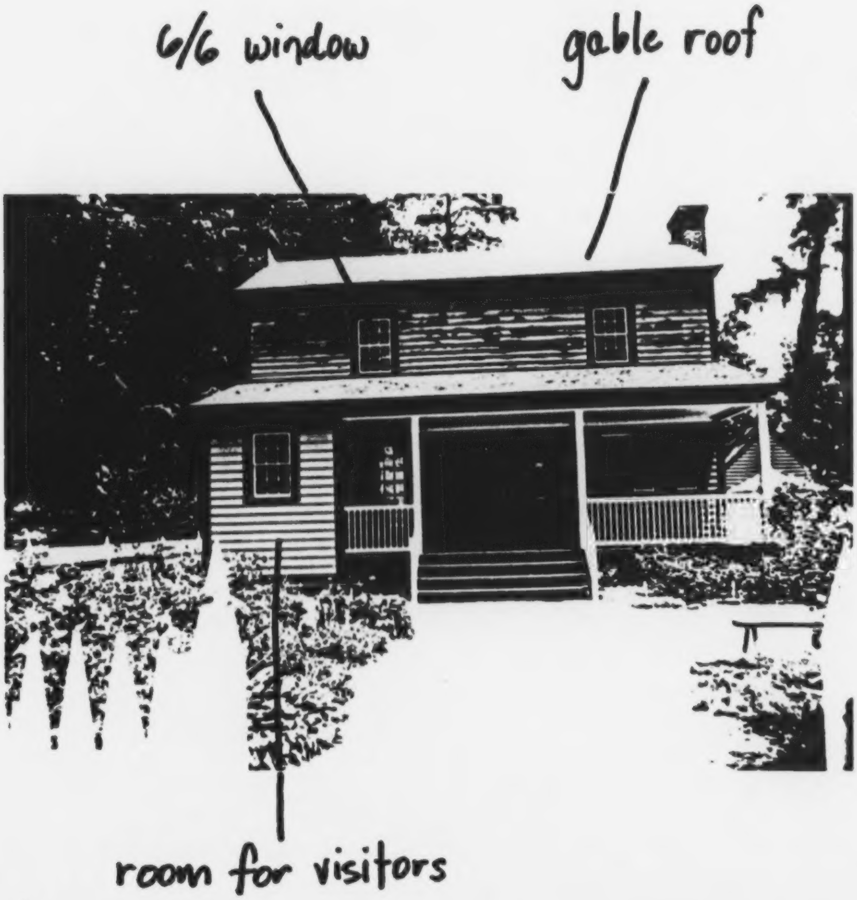
This house has brick exterior end chimneys and a simple gable roof. The windows next to the chimney have small pieces of glass. Each sash has 9 panes, so we call these 9 over 9 windows; the windows on the second story are 6 over 6. As a general rule, the smaller the panes of glass in a window, the earlier the house. The I-house was very adaptive to the southern climate because it was only one room deep and the windows could be opened on each side of the house to allow circulation of air; this was very important in an era before air conditioning.



## I. SLIDE #17

The I-house plain style homes were usually located so that they faced the road. This marks the beginning of a socially conscious era; before, it was more important for a house to be oriented toward aspect for breeze and sun. This home gives a very large appearance for a four room house.

The small room on the front porch was for traveling preachers or teachers. This visitor's room was visual proof of southern hospitality. Identify features of the plantation plain style: one room deep, 2 stories high, brick exterior end chimneys, shed porch to the front and rear, 6 over 6 windows.



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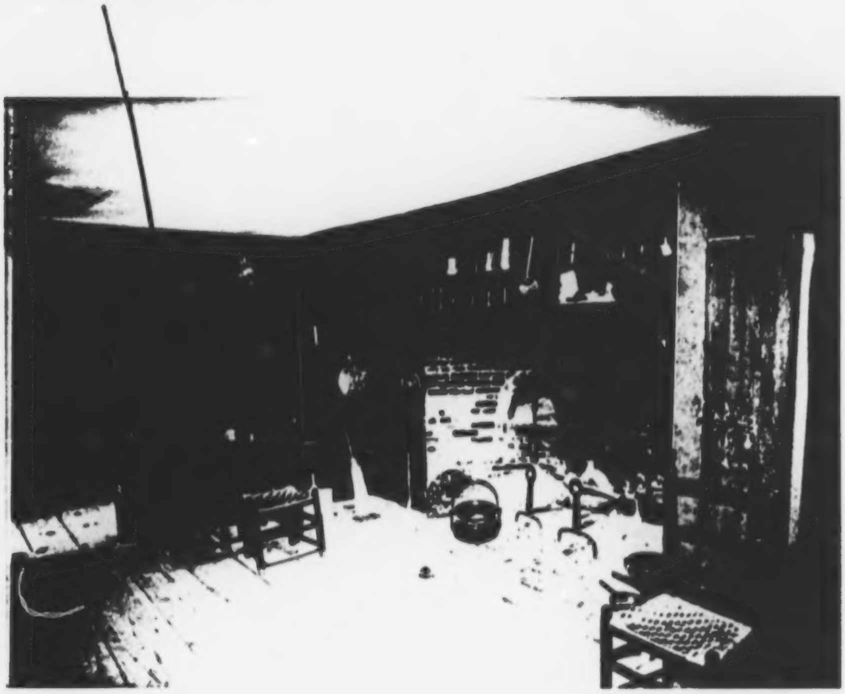
## I. SLIDE #18

The interior of these plain houses usually had walls of hand-planed horizontal boards. Plaster was rare and used only in the best room. Every room had a very large, simple mantel over a wood-burning fireplace. Each room had several functions; for example, the parlor also served as a bedroom. Consequently, there was very little privacy. These were the homes of simple, hard-working farmers.

hand-planed
horizontal boards



## I. SLIDE #19

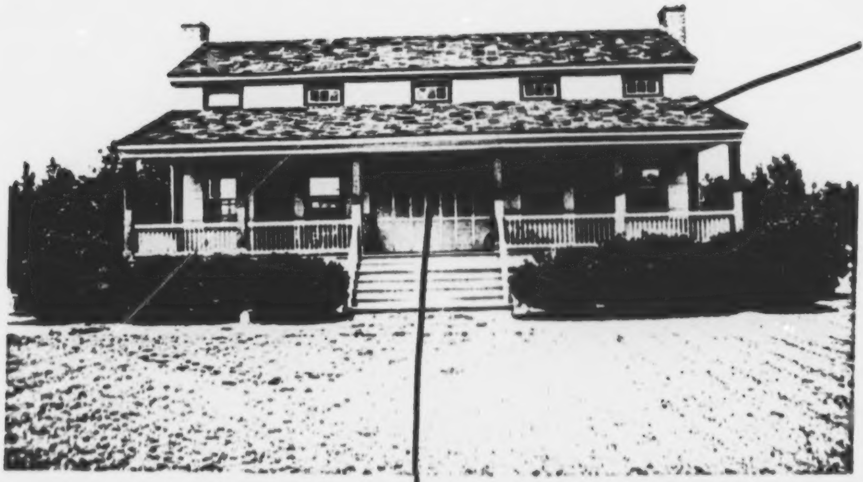
Early homes often had swept dirt lawns. There are many reasons for swept dirt yards. Swept dirt lawns around the house made the area safe from snakes and served as a fire break around the house. Grassy lawns only became popular after the invention of the lawn mower.

Houses had informal landscaping with circular rock flower gardens and large shade trees. There was usually a vegetable garden near the house. Most houses had cedar trees planted nearby.

## I. SLIDE #20

This is an example of the I-house. The central area was an open dogtrot. Notice that the house has two front doors. It is two stories tall and one room deep with a shed porch. It has very small windows on the second floor.

In this lesson we have seen the evolution of homes from the single-pen log structure to the plantation plain style. In the next lesson we will learn how the plantation plain style is transformed into an image of a Greek temple.



shed porch

dogtrot with shutters

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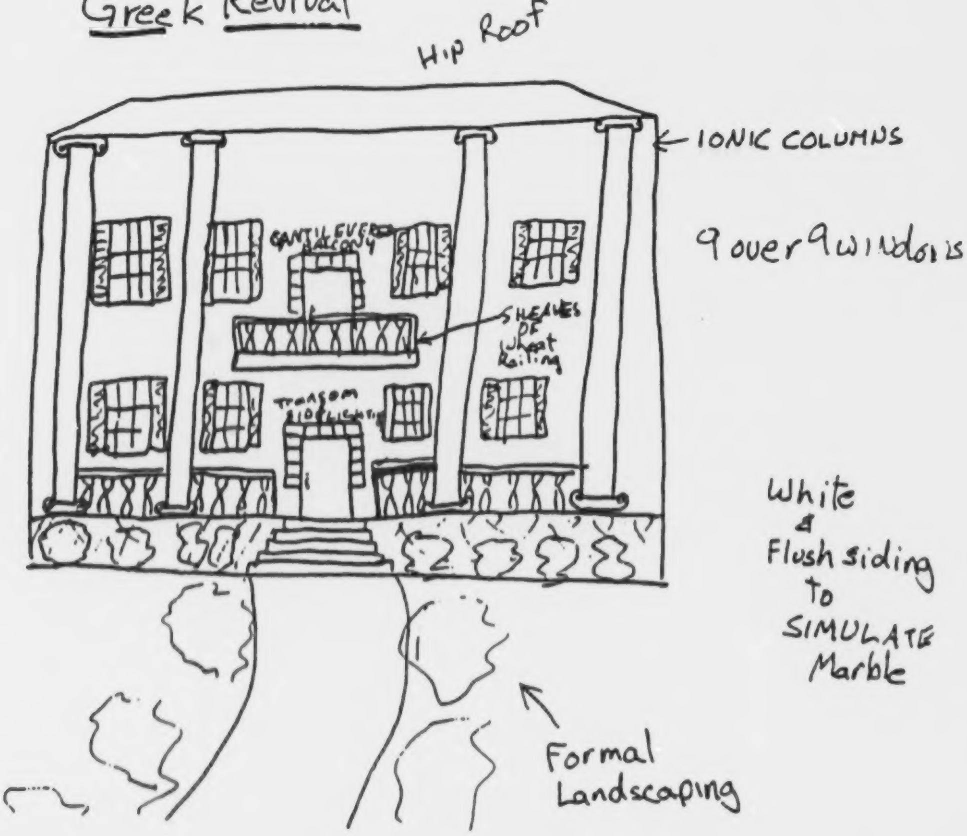
Neal Wilson - 14 - Bowdon

## Greek Revival


Hip Roof
IONIC COLUMNS
9 over 9 windows
CANTILEVERED BALCONY
SHEAVES OF Wheat Railing
Transom SIDELIGHTS
White & Flush siding to SIMULATE Marble
Formal Landscaping

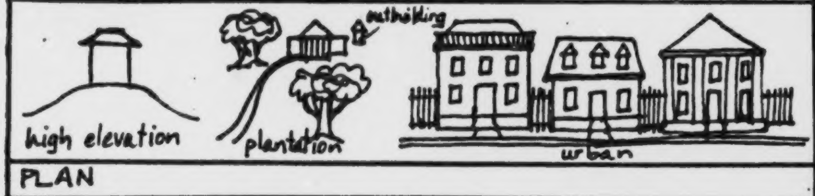
LESSON TWO

# VISUAL SURVEY FORM: GEORGIAN, FEDERAL, AND GREEK REVIVAL

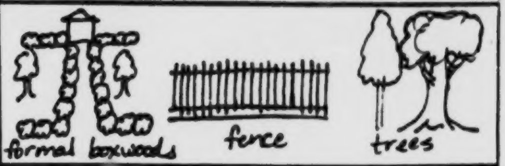
Directions: Circle the details that are closest to what you see.

SITE

**LOCATION**

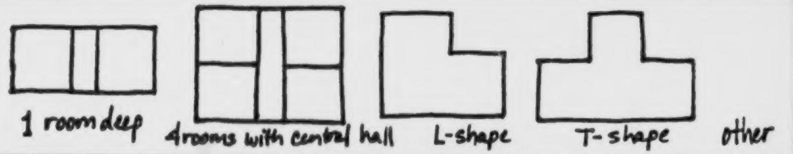

high elevation
outbuilding
plantation
urban

**LANDSCAPE**

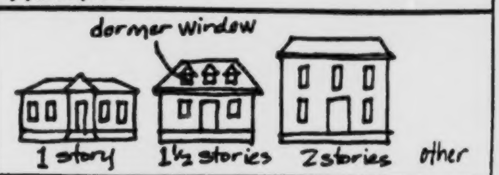

formal boxwoods
fence
trees

FORM

**PLAN**

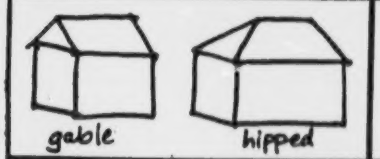

1 room deep
4 rooms with central hall
L-shape
T-shape
other

**HEIGHT**

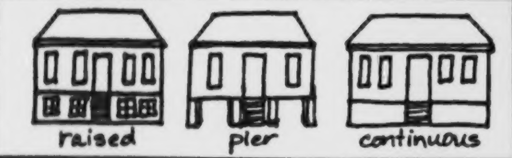

dormer window
1 story
1½ stories
2 stories
other

FEATURES

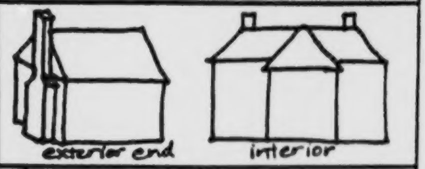
**ROOF**


gable
hipped

**FOUNDATION**

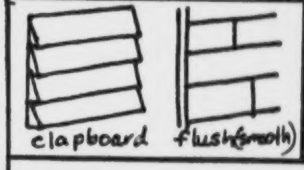

raised
pier
continuous

**CHIMNEY**

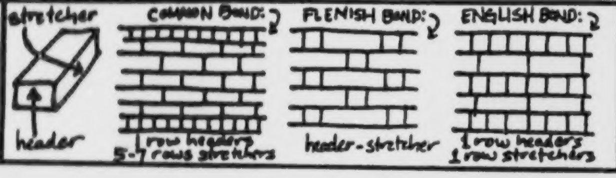

exterior end
interior

MATERIALS

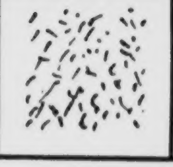
**WOOD**


clapboard
flush (smooth)

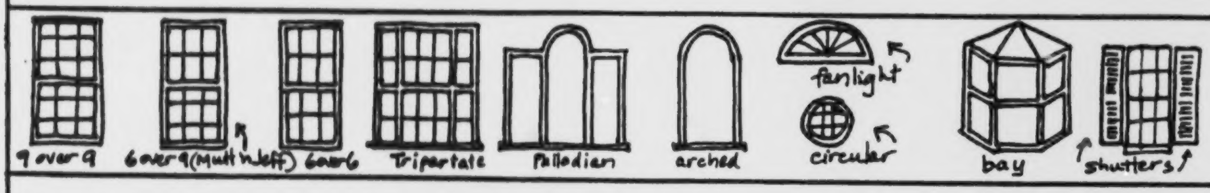
**BRICK**


stretcher
header
COMMON BOND:
1 row headers
5-7 rows stretchers
FLEMISH BOND:
header-stretcher
ENGLISH BOND:
1 row headers
1 row stretchers

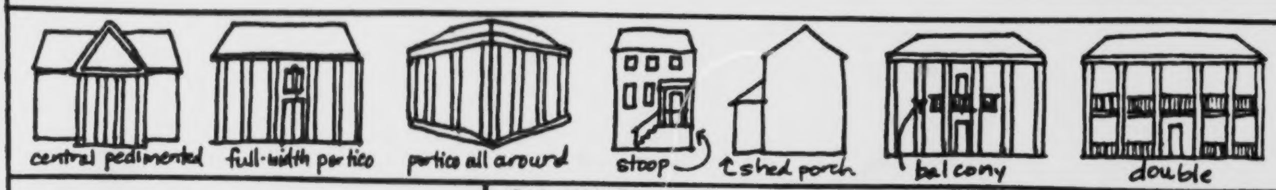
**STUCCO**



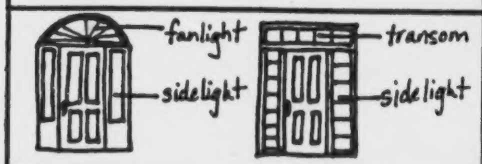
WINDOWS


9 over 9
6 over 9 (Mutt n Jeff)
6 over 6
Tripartate
Palladian
arched
fanlight
circular
bay
shutters

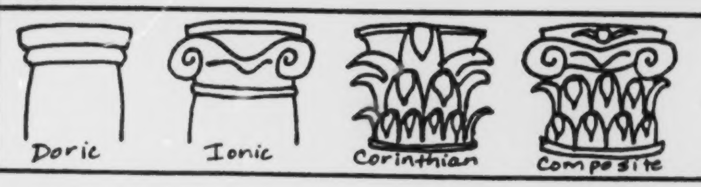
PORCH


central pedimented
full-width portico
portico all around
stoop
shed porch
balcony
double

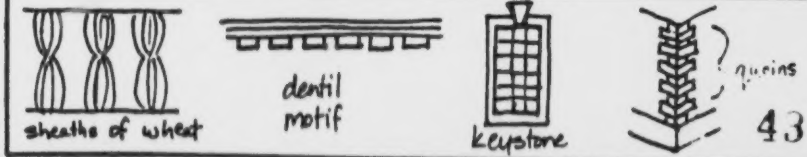
ENTRANCE


fanlight
sidelight
transom
sidelight

**COLUMNS**


Doric
Ionic
Corinthian
Composite

DETAILS


sheaths of wheat
dentil motif
keystone
quoins

M.D.M.

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## SLIDE LESSON II: WHITE COLUMNS

## FEDERAL AND GREEK REVIVAL STYLE

Terms to list on the blackboard:

Romantic Era

Renaissance

fanlight

Andrea Palladio

classical columns:
- Doric
- Ionic
- Corinthian

central pedimented portico

heavy-timber frame construction

mortise & tenon

dentil motif

hip roof

symmetrical & bilateral symmetry

transom

cantilevered

### STYLES

I-house

Federal

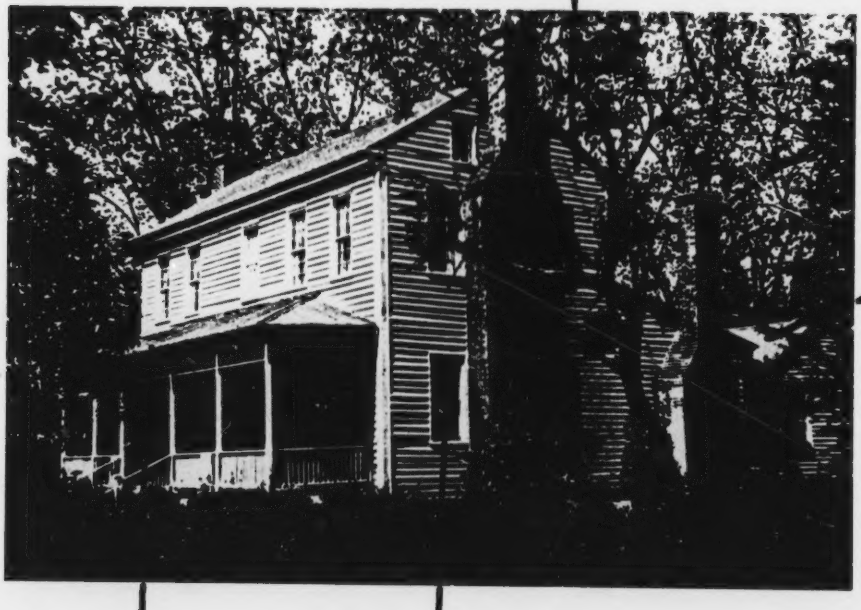
Greek Revival

## II. SLIDE #1

As frame buildings began to replace log homes of early settlers, a common house type was two stories tall and one room deep. This type of house is called the Georgian I-house. Georgian I-houses are easy to identify: they are two stories high and one room deep with 9 over 9 and 6 over 6 windows, exterior end chimneys, gable roof. Houses with shed porches to the front and rear are called "Plantation Plain style" houses because these were the type of houses many farm families lived in prior to the Civil War.

In the south many early houses had kitchens which were separated from the main house. Can you think of some reasons for this? heat? fire?

This plain style house is called plain because it has little ornamentation. It does not conform to any architectural fashion; it developed from local building traditions.



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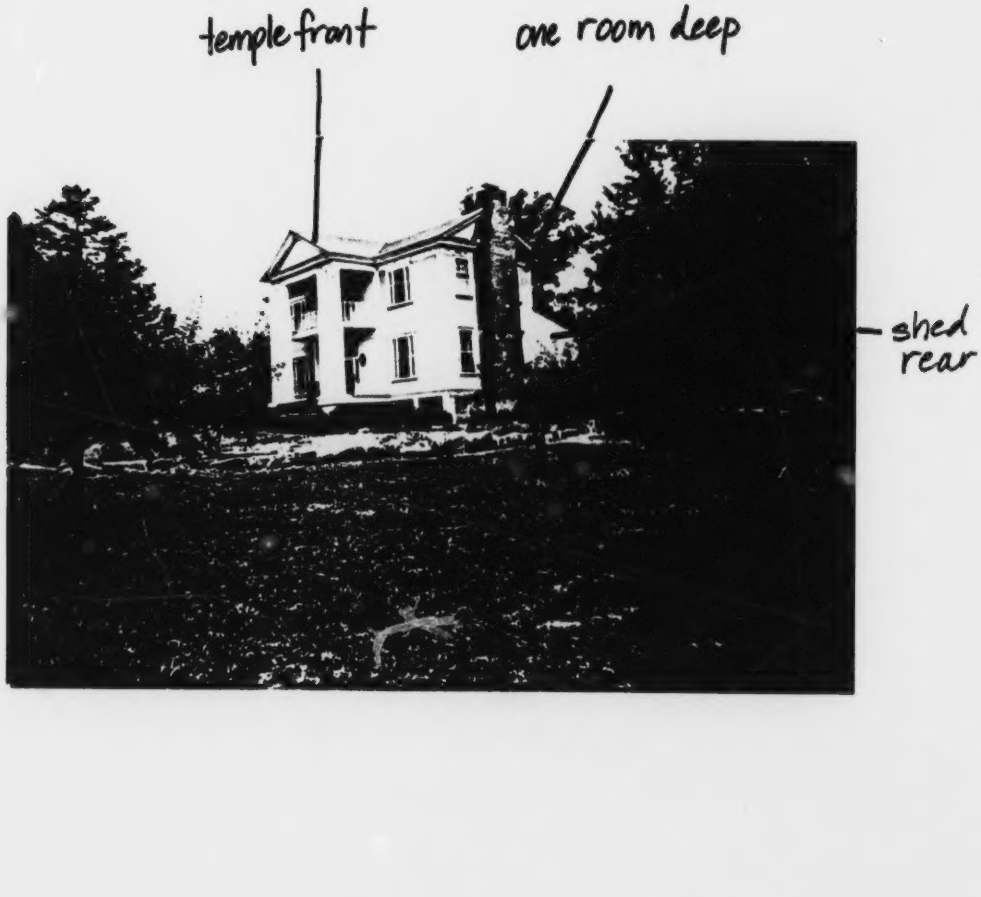
## II. SLIDE #2

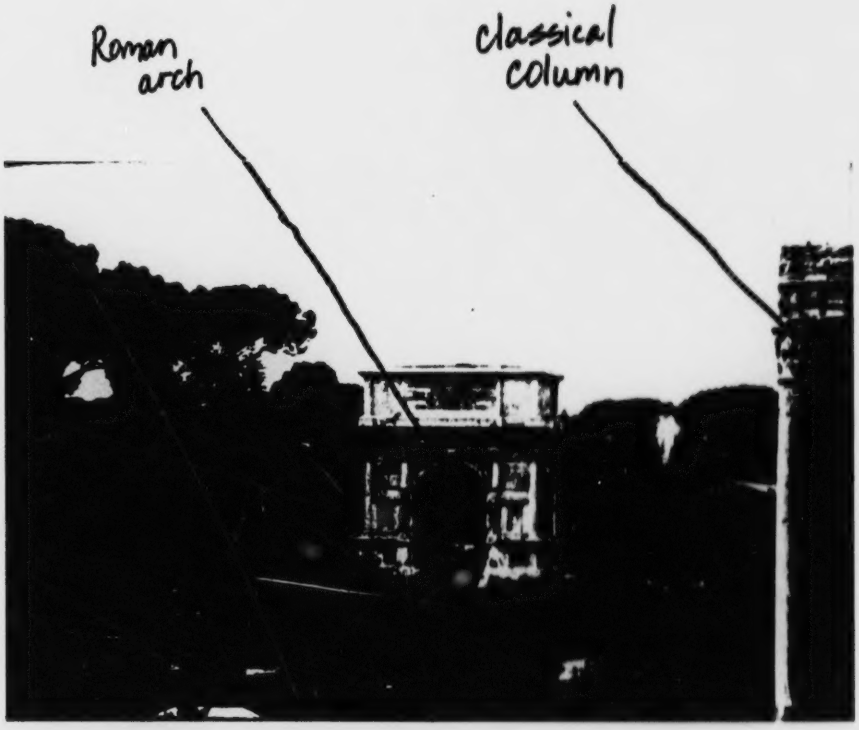
This house illustrates the beginning of the Romantic Era in American architecture. The root of the word romantic is Roman. During the Romantic era, homes were built to evoke images of ancient Greek and Roman buildings. The I-house form, two stories high, one room deep, was transformed by adding an ancient temple front with classical columns. Now we will see how and why an image of an ancient temple came to be a popular fashion in American architecture.



## II. SLIDE #3

The beginnings of this fashion go back several hundred years to the Italian Renaissance of the 14th century. Renaissance means re-birth; this was a time when the art, architecture, and philosophy of ancient Rome was being studied. Ancient ruins were studied in great detail and inspired a re-birth of classical features on new buildings throughout Italy and Europe.

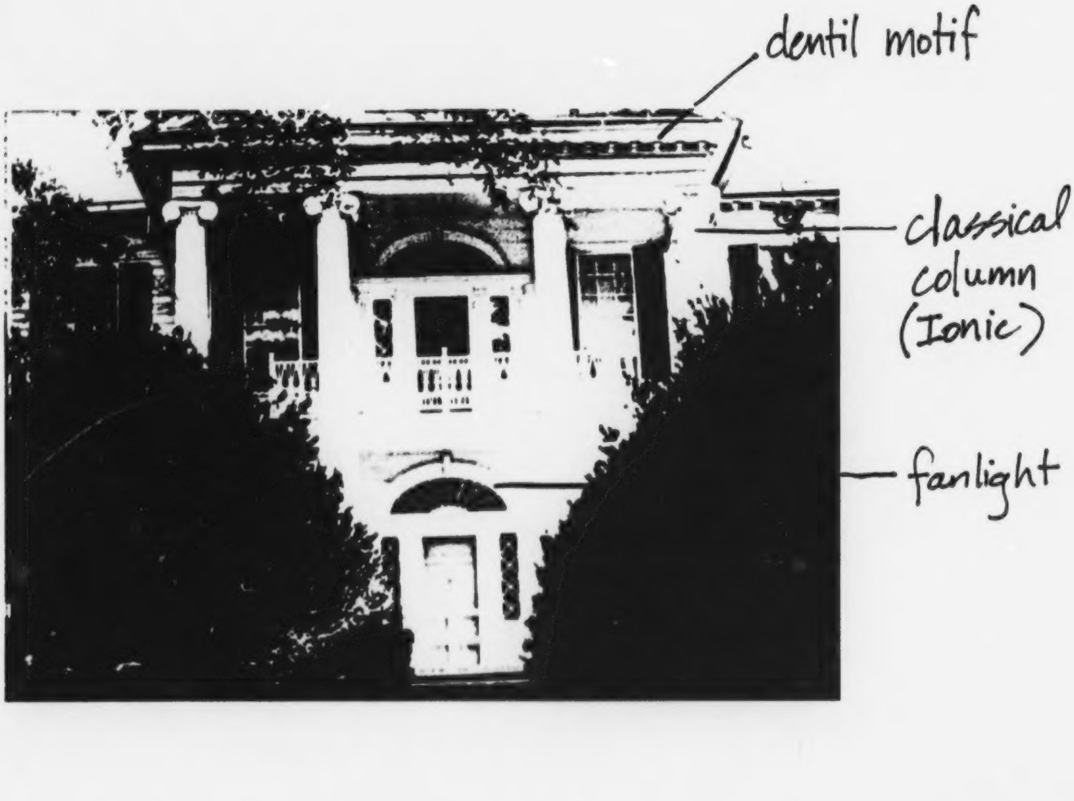
This slide illustrates some important design elements: the round Roman arch, the classical columns, the emphasis on symmetry or balance, and the use of stone.



## II. SLIDE #4

With the addition of Roman features, common buildings could be transformed into the Federal style. Can you identify the Roman features in this slide? Look for the classical column, and the arch over the door, which is called a fanlight, because it is shaped like a fan. There are several different types of classical columns. This type of column is called Ionic. It is easy to identify Ionic columns because the capital or top looks like a ram's horn or an upside-down scroll, an ancient type of paper.

Another classical detail is called the dentil motif. Motif means repeating pattern. Dent is the Latin word for teeth and the dentil motif is a teeth-like molding found under the roof of the house.



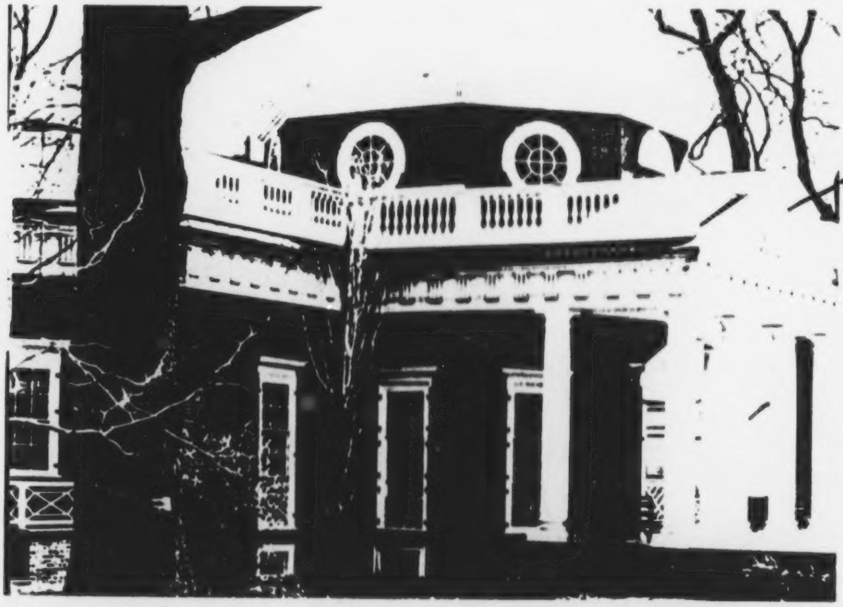
## II. SLIDE #5

In America, buildings with Roman designs were called Federal style. Roman architecture became a symbolic link between our young country and the ideals of the ancient Roman republic. Thomas Jefferson, who greatly influenced the look of architecture in America, worked to create an American style based on Roman features.

Jefferson built his own home, Monticello, in the Federal style. Jefferson was not only a scholar and a statesman, but also an architect. He visited Roman ruins in Europe and collected architectural books.

One architectural book Jefferson collected was written by an Italian stone mason named Andrea Palladio. Through his work, The Four Books of Architecture, published in the 1500s, Palladio set the standards for classical design. His book was translated into English in the 1700s; his designs became fashionable in England and later in America.

Palladio's book provided drawings of classical columns, advice on construction techniques, and included designs for houses. He is credited with the idea of putting a temple front onto a house. The temple front seen on Monticello is called a central pedimented portico. Portico means porch. Pediment refers to the triangle above the porch. Central mean that the portico is located at the center of the house and does not spread across the whole front.



central
pedimented
portico

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## II. SLIDE #6

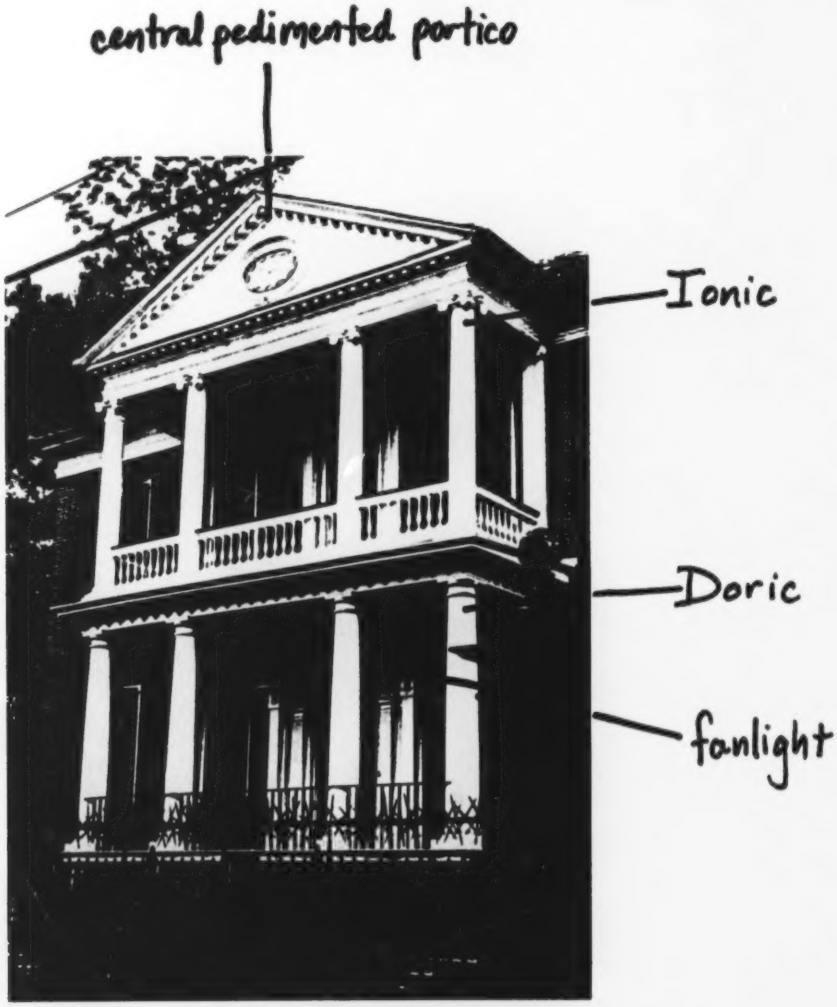
Palladio believed that the true vocabulary of architecture was developed by the Romans over 1000 years ago. According to Palladio, beauty was the combination of historical correctness and practicality. Palladio laid down rules of proportion and design which have influenced architecture for over 400 years.

Five classical columns are illustrated here. The three most common are the Doric, Ionic, and the Corinthian. The simplest is the Doric column, which can be round or square and has a plain capital. An easy way to identify a column is by the capital or top. The Ionic column is easy to identify; its capital looks like a scroll the ancient Greek scholars wrote on, turned upside-down. It has curls on each side. The Corinthian column has an ornate capital. It looks like leaves of a plant. These column types came from the ancient Roman architects, who got their ideas from ancient Greek buildings.

## II. SLIDE #7

Identify Federal features on this house. The house has a temple front called a central pedimented portico. It has Doric and Ionic columns, painted white to look like marble.

Early Federal style houses were often red brick with white columns. As the style spread into rural areas, local builder-architects transformed common buildings by adding classical details found in architectural pattern books.


central pedimented portico
Ionic
Doric
fanlight

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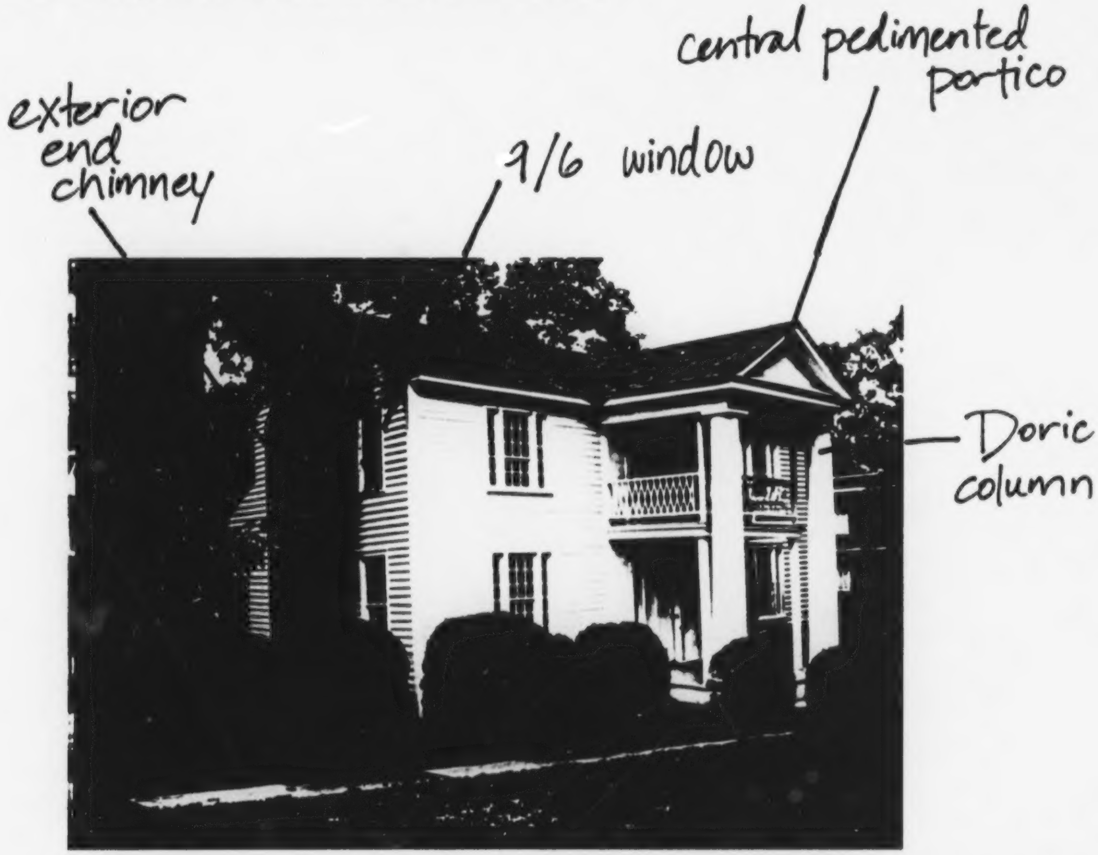
## II. SLIDE #8

This is an I-house which has been transformed into the Federal style by adding a central pedimented portico. Portico is a fancy word for porch. Pediment refers to the triangle above the portico. Central means that the porch does not go all the way across the front. Central pedimented portico is a fancy way of saying center porch with a triangle on top of it. Adding a central pedimented portico was a simple way to transform the plain I-house into the Federal style.

Can you identify features of the I-house form? Two stories high, one room deep, exterior end chimneys, 9/6 windows.

Identify the classical features. Central pedimented portico, Doric columns, painted white to look like marble.

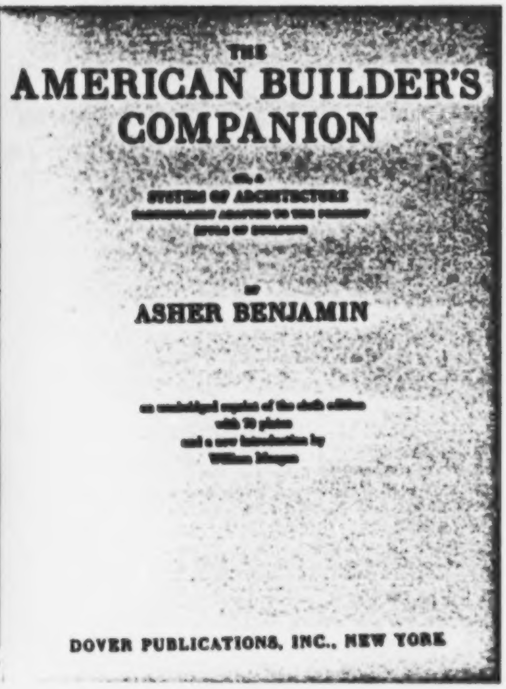


## II. SLIDE #9

The principles of classical architecture made their way to rural areas by way of builder's handbooks. The American Builder's Companion by Asher Benjamin went into 6 editions by 1827; it was just one of many books available to rural builders. These publications served as the only architectural education for carpenter-builders. They contained basic designs and practical guidelines for construction of fashionable features such as circular stairs, doors with fanlights, and decorative mantels. These books helped to spread the classical style in America by providing house plans and practical construction notes for making classical features.

Asher Benjamin (1773-1845)

Courtesy Greenfield Public Library



THE
AMERICAN BUILDER'S
COMPANION

SYSTEM OF ARCHITECTURE

BY
ASHER BENJAMIN

DOVER PUBLICATIONS, INC., NEW YORK

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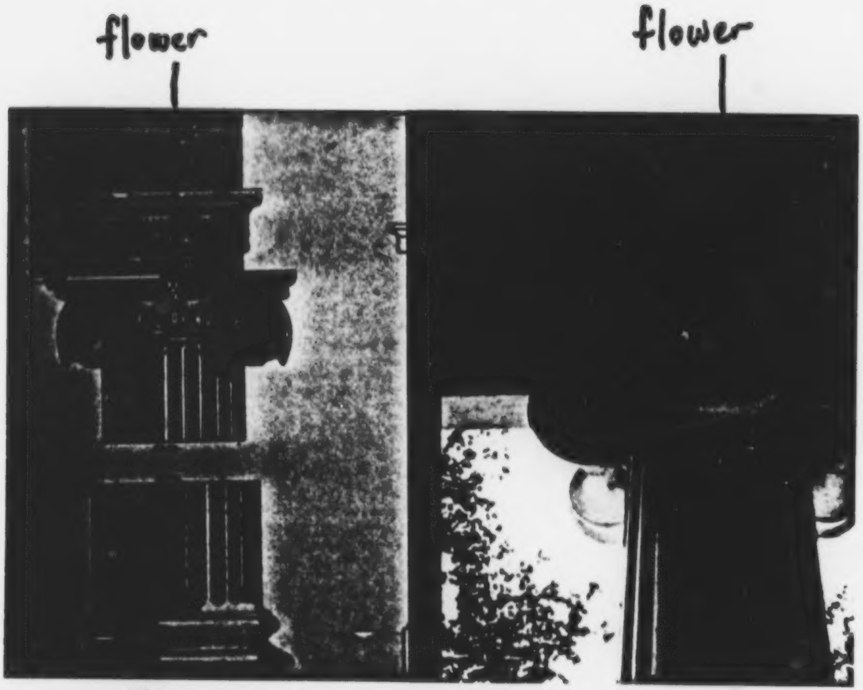
## II. SLIDE #10

The earliest architects were carpenter-builders. Palladio himself was a stone mason. Architecture as a profession is a recent concept. There was no such thing as an architectural school. Ideas and fashions were spread by traveling and studying other buildings, and through builder's handbooks.

This Ionic capital illustrates the use of builder handbooks. Notice the similarity between the two capitals: both have a flower in the center.

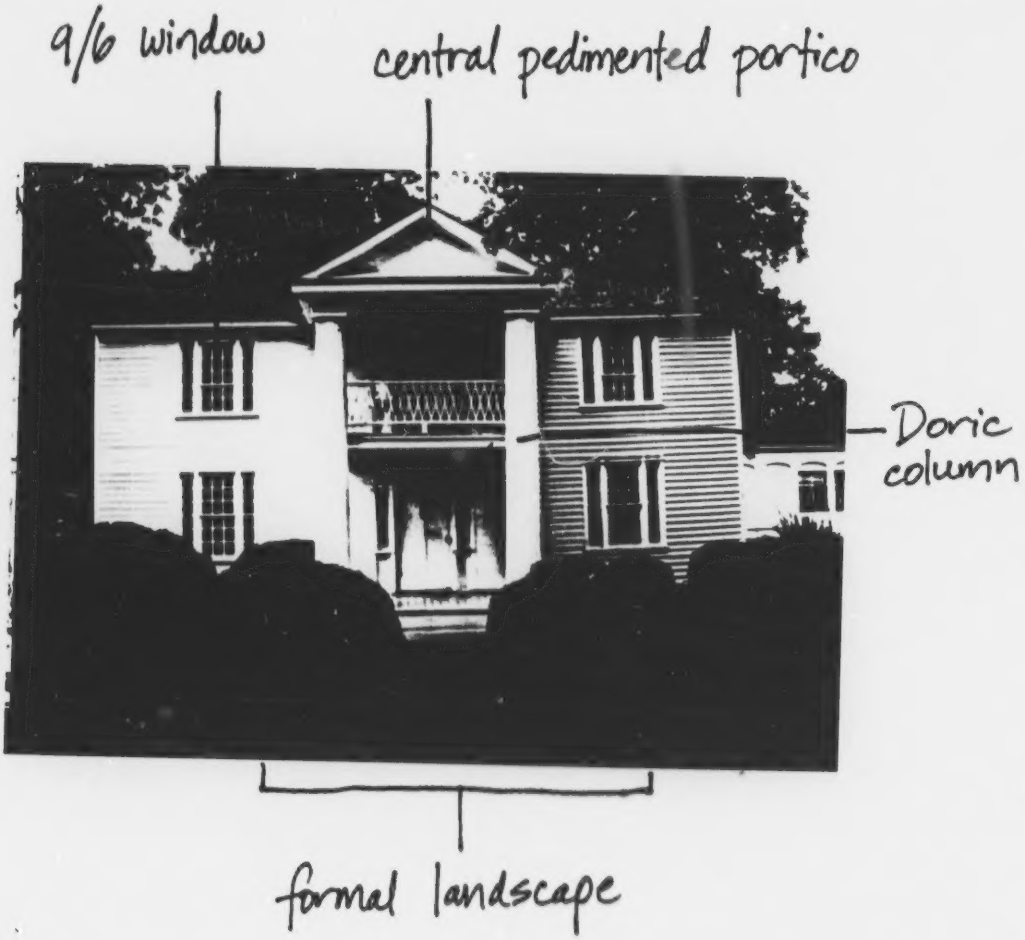


← Asher Benjamin plate

## II. SLIDE #11

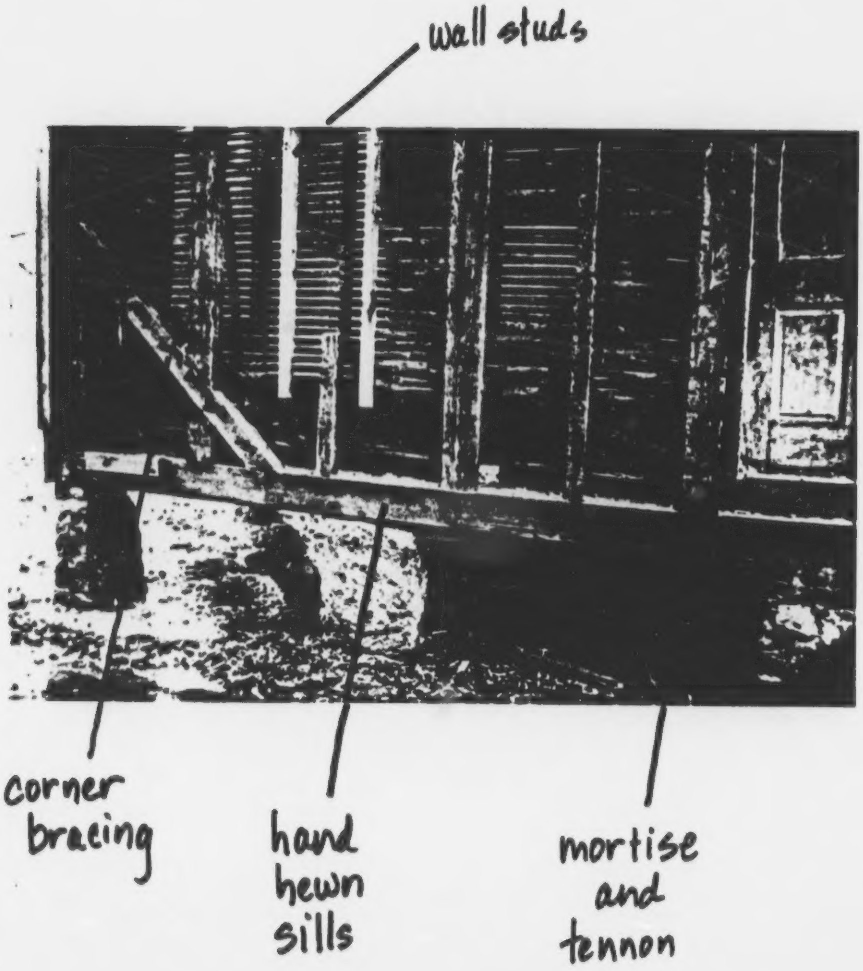
Identify the features of the Federal style building
9/6 windows, Doric columns, painted white to look like marble, a central pedimented portico. Classical buildings were arranged symmetrically. If a line was drawn through the middle of the building, the windows on one side would match the windows on the other. The doors above and below are symmetrical.

The formal architectural style of this era is complemented by formal landscape features. The formal boxwoods form an alley which corresponds to the central hall inside.


9/6 window
central pedimented portico
Doric column
formal landscape

## II. SLIDE #12

The construction technique used to build frame homes was called heavy-timber construction. Heavy-timber construction consisted of hand hewn sills and corner posts with bracing that was held together with wooden pegs. This frame was covered with clapboard siding.


wall studs
corner bracing
hand hewn sills
mortise and tennon

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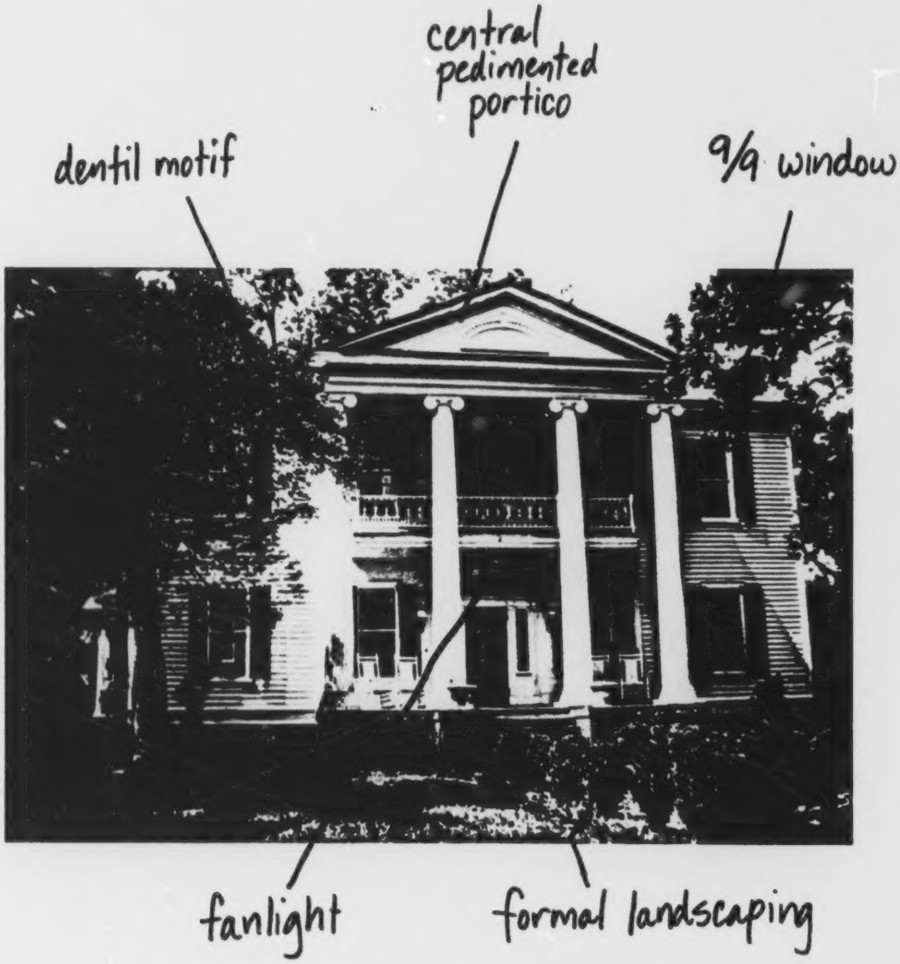
## II. SLIDE #13

The Federal style was popular for only a short time and was replaced by the Greek Revival style. The two styles are very similar because they both evoke images of ancient classical temples; however, the Federal style uses the Roman architectural vocabulary while the Greek Revival style uses Greek details.

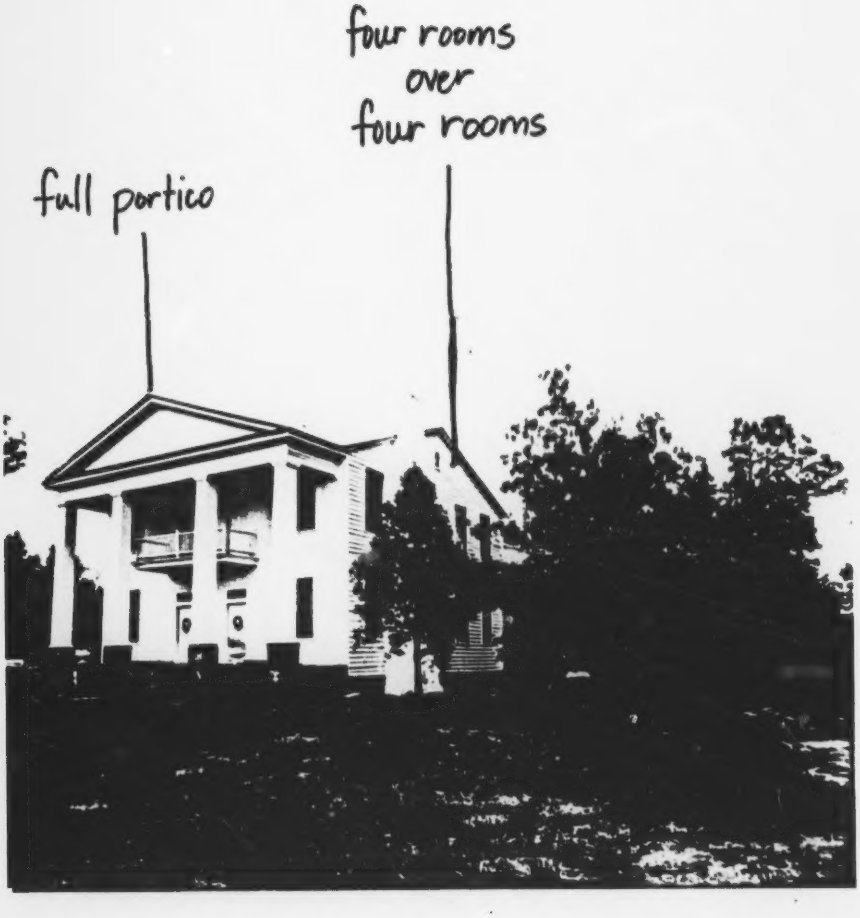
Let's review the Federal style by having a student come to the slide and identify the Federal features. Central pedimented portico, Ionic columns, white to represent marble, 9/9 windows fanlight over the door, symmetry, and dentil motif, formal landscaping.


central pedimented portico
dentil motif
9/9 window
fanlight
formal landscaping

## II. SLIDE #14

We have seen how a two story I-house is transformed into the Federal style by adding a temple front. The Federal style, which is based on Roman features, was replaced in popularity by the Greek Revival style around 1840.

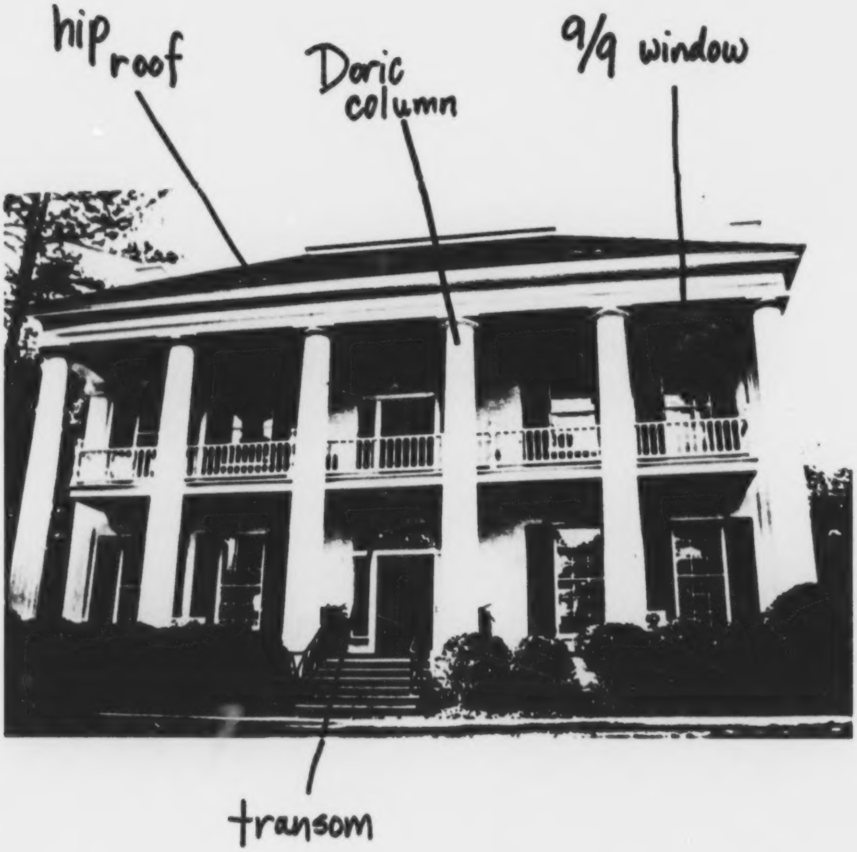
In the change from Federal to Greek, the first step was to enlarge the pedimented portico across the whole front of the house making it a full portico. Instead of being one room deep, houses were shaped like cubes, with four rooms on each floor. White was still the popular color and houses were arranged symmetrically.



## II. SLIDE #15

Roman architecture is actually based on the earlier simpler Greek architecture. Both styles are based on features of ancient temples. In the Greek Revival style, the fanlight over the door is replaced by a transom, which looks like a flat bar. The pointed gable roof is replaced by a hip roof which slopes in on all four sides. The hip roof covers a cube shaped building better than a gable roof.

Greek Revival houses have bilateral symmetry. Features of the house are arranged to match whether you draw a horizontal or a vertical line. Identify other classical features. 9/9 windows, white, Doric columns.



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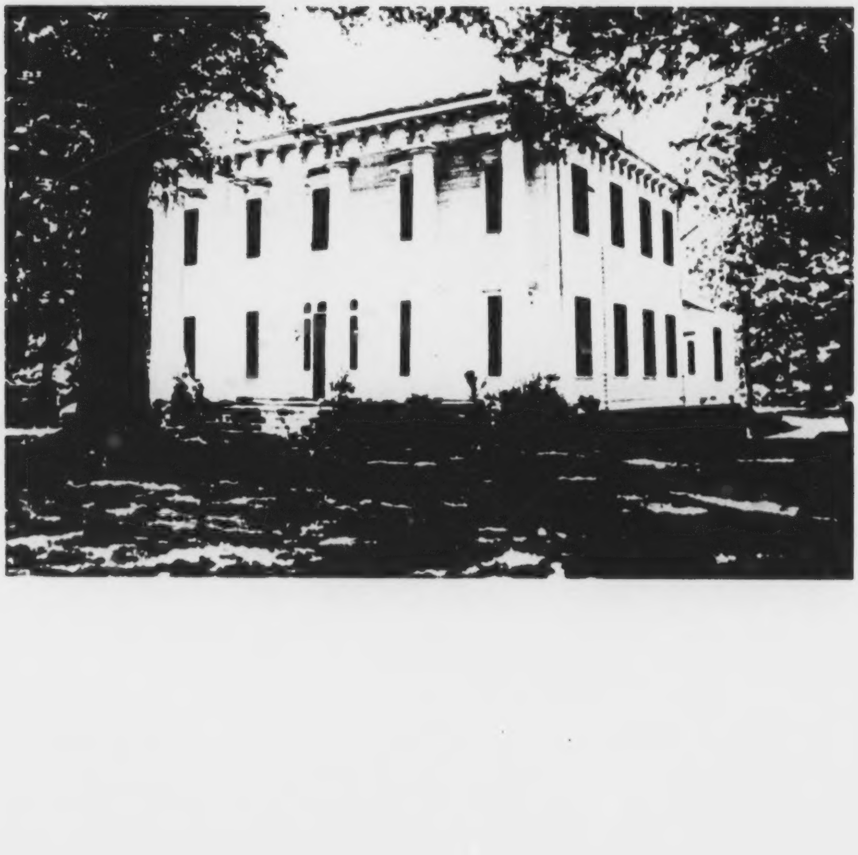
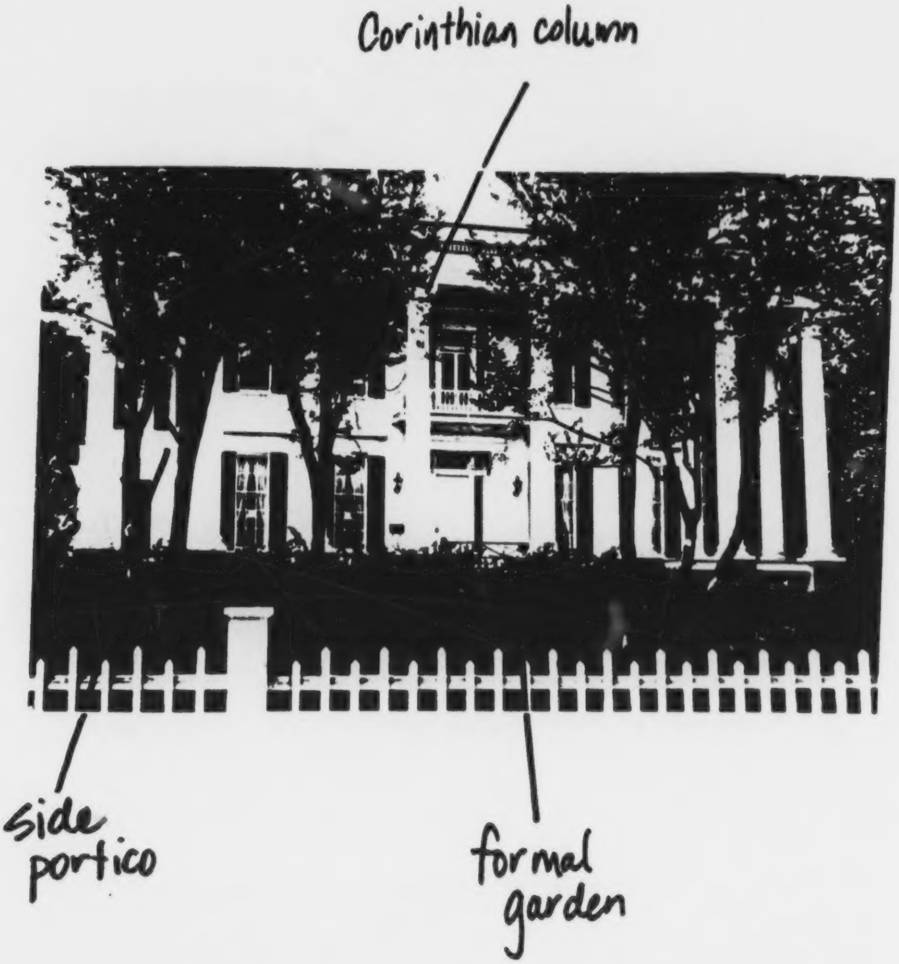
## II. SLIDE #16

People often think of Greek Revival houses as being plantation homes, but many Greek Revival houses are found in cities. Identify the Greek Revival features on this house. Cube shaped with four rooms over four rooms, low and almost flat hip roof, white, bilateral symmetry.



## II. SLIDE #17

At the height of the the Greek Revival style, prior to the Civil War, the classical porticos not only covered the front of houses but also the sides. Some houses were encircled by columns. This house has Corinthian columns --notice the leafy capitals. It has a formal boxwood garden surrounded by a white picket fence. It is cube shaped with a low hip roof. It has bilateral symmetry and a transom above the door.



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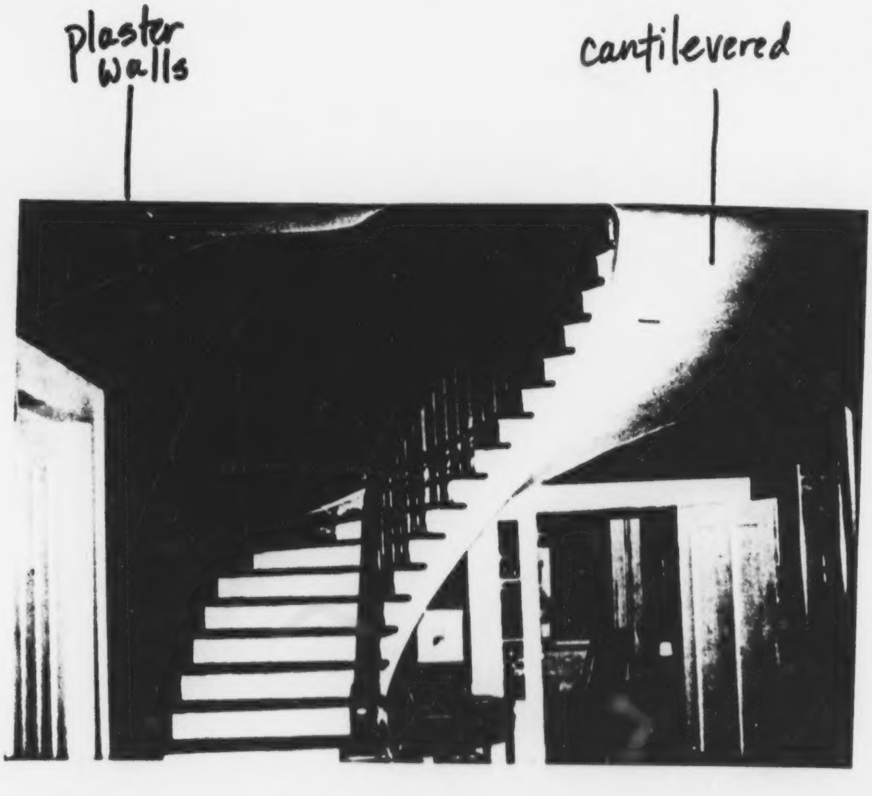
## II. SLIDE #18

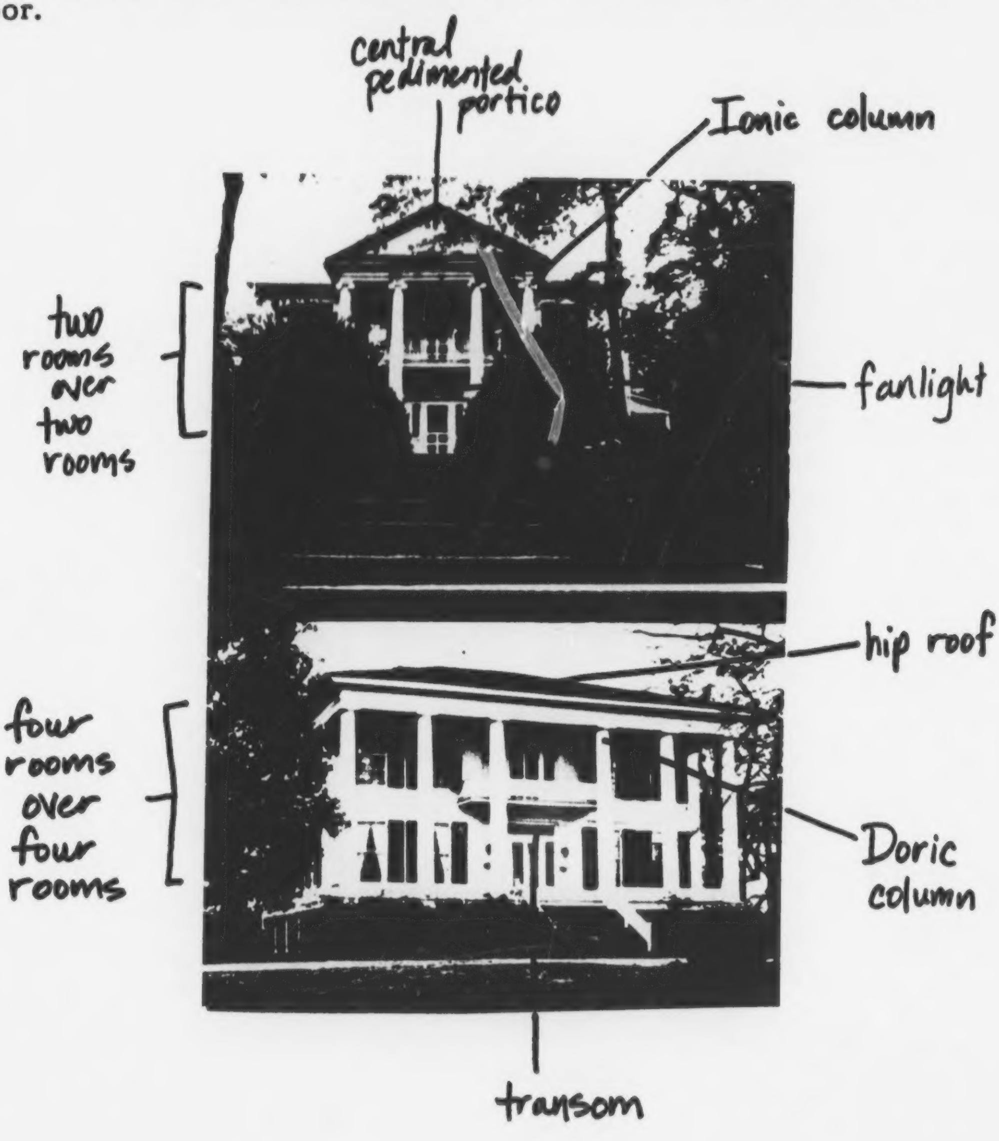
Houses often had wide central halls with four rooms on each floor. The stair is cantilevered from the wall, with no visible means of support. These graceful stairs were very popular; builder's handbooks such as Asher Benjamin's gave craftsmen instructions on how to build these stairs.

The walls are made of plaster instead of wood. Plaster created a smooth texture that looked like stone. Early plaster has three or more layers. The base coat is made of mud and clay with horse or pig hair for a binder; this is applied onto a grill of small pieces of wood, called laths. The second layer consists of lime and sand mixed with horse hair for a binder. Finally, a thin coat of lime is painted onto the surface to make it smooth. Plaster walls were created only in the best rooms.



## II. SLIDE #19

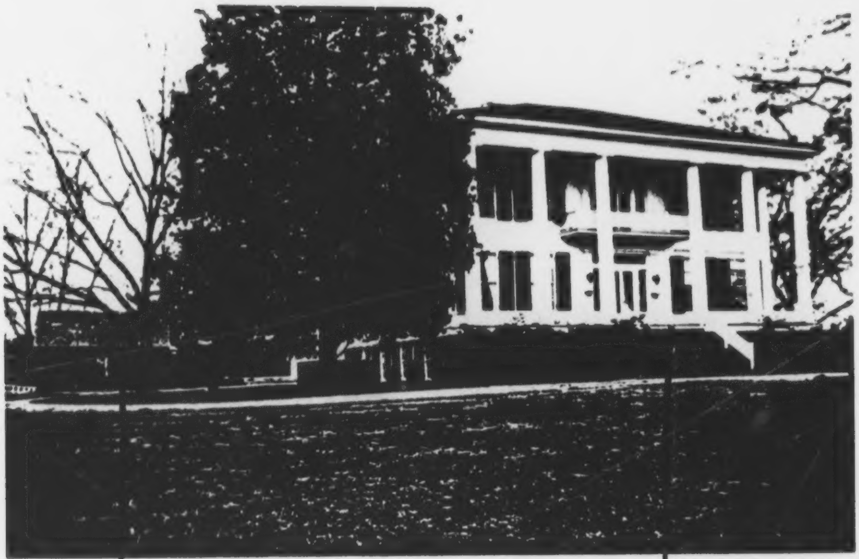
Ask a student to go to this slide and compare and contrast the Federal and Greek Revival Style. Both houses are white with classical columns. The Federal style has a central pedimented portico and a fanlight over the door. It is based on Roman architecture. The Greek Revival has a full width portico. It is square with a hip roof and has a transom over the door.


central pedimented portico
Ionic column
two rooms over two rooms
fanlight
hip roof
four rooms over four rooms
Doric column
transom

## II. SLIDE #20

Early settlers often built one-room log homes to shelter their families. As they prospered, they built larger more formal homes.

Prior to the Civil War, homes can be described in terms of the evolution of the square. Starting with the one room log structure, buildings grew into a large cube with four rooms on each floor. After the Civil War, the Federal and Greek Revival style went out of fashion and a new construction technique developed which freed houses from the square form.



single pen log

Greek Revival style

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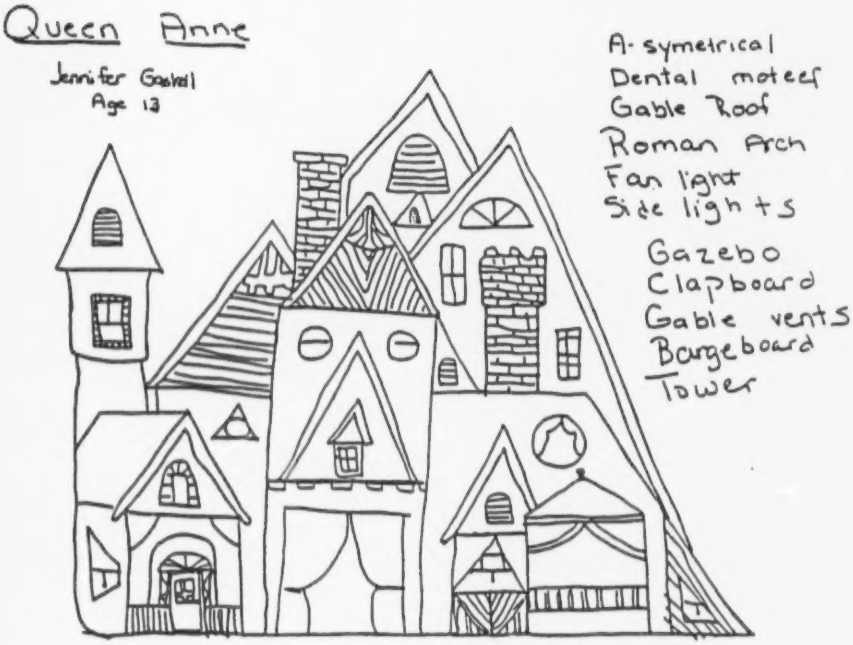
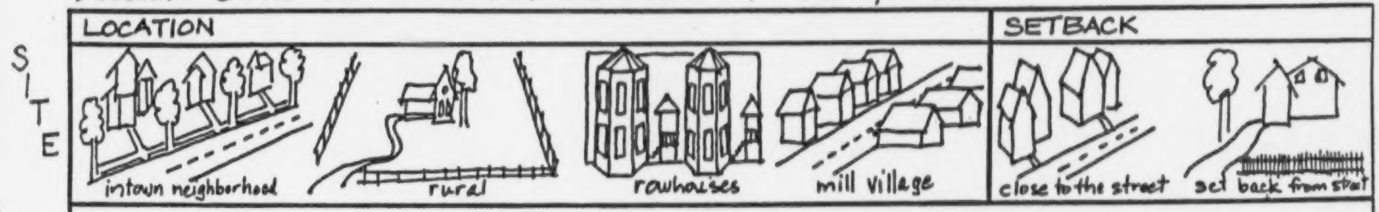
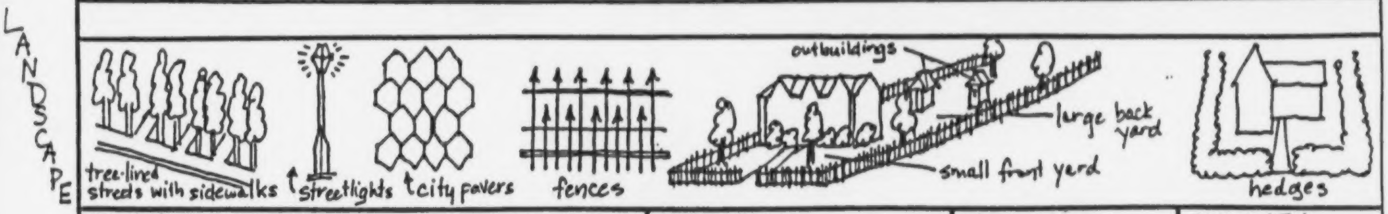

Queen Anne
Jennifer Gaskell
Age 13
A-symetrical
Dental moteef
Gable Roof
Roman Arch
Fan light
Side lights
Gazebo
Clapboard
Gable vents
Bargeboard
Tower

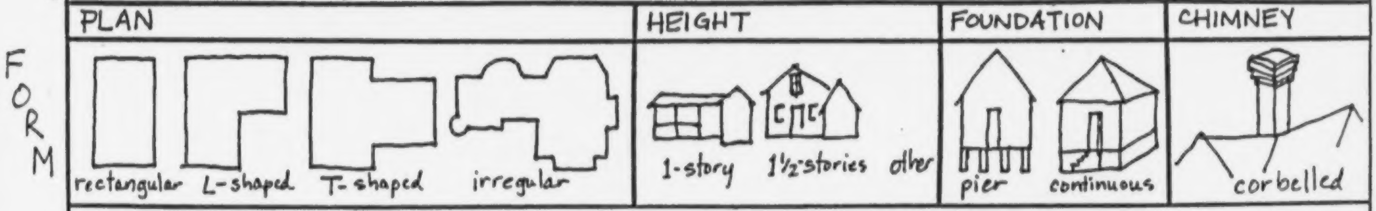
## LESSON THREE

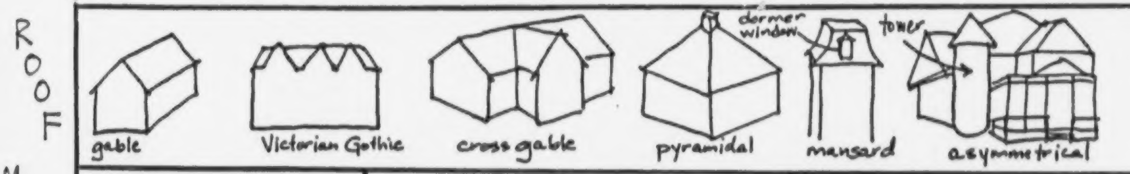
# VISUAL SURVEY FORM: HISTORIC VICTORIAN HOMES

Directions: Circle the details that are closest to what you see.

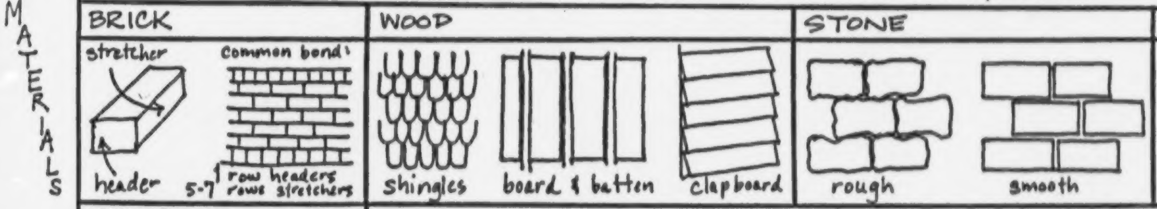

SITE
LOCATION
intown neighborhood
rural
rowhouses
mill village
SETBACK
close to the street
set back from street


LANDSCAPE
tree-lined streets with sidewalks
streetlights
city pavers
fences
outbuildings
large back yard
small front yard
hedges

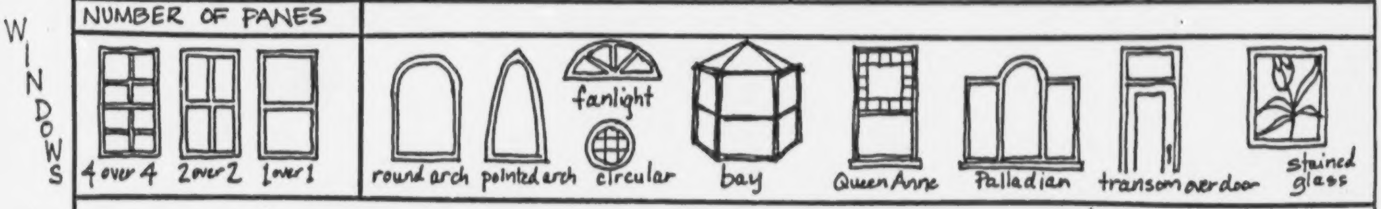

FORM
PLAN
rectangular
L-shaped
T-shaped
irregular
HEIGHT
1-story
1½-stories
other
FOUNDATION
pier
continuous
CHIMNEY
corbelled

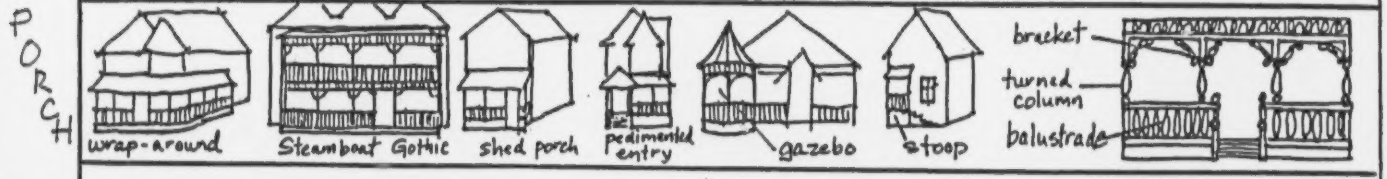

ROOF
gable
Victorian Gothic
cross gable
pyramidal
dormer window
mansard
tower
asymmetrical

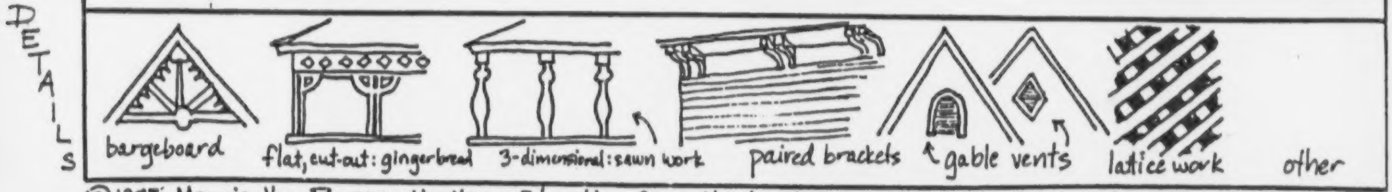
roof materials:
pressed-metal ☐
wood ☐
tile ☐


MATERIALS
BRICK
stretcher
header
common bond:
5-7 rows stretchers
1 row headers
WOOD
shingles
board & batten
clapboard
STONE
rough
smooth

COMBINATION
brick ☐
wood ☐
stone ☐
other ☐


WINDOWS
NUMBER OF PANES
4 over 4
2 over 2
1 over 1
round arch
pointed arch
fanlight
circular
bay
Queen Anne
Palladian
transom over door
stained glass


PORCH
wrap-around
Steamboat Gothic
shed porch
pedimented entry
gazebo
stoop
bracket
turned column
balustrade


DETAILS
bargeboard
flat, cut-out: gingerbread
3-dimensional: sawn work
paired brackets
gable vents
lattice work
other

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## SLIDE LESSON III: VICTORIAN ERA

Terms to list on the blackboard:

balloon-frame construction

A.J. Downing

gingerbread

bargeboard

asymmetrical

1-over-1 windows

rowhouse

mansard roof

dormer window

roof cresting

### STYLES

Shotgun

Victorian Gothic

Steamboat Gothic

Queen Anne

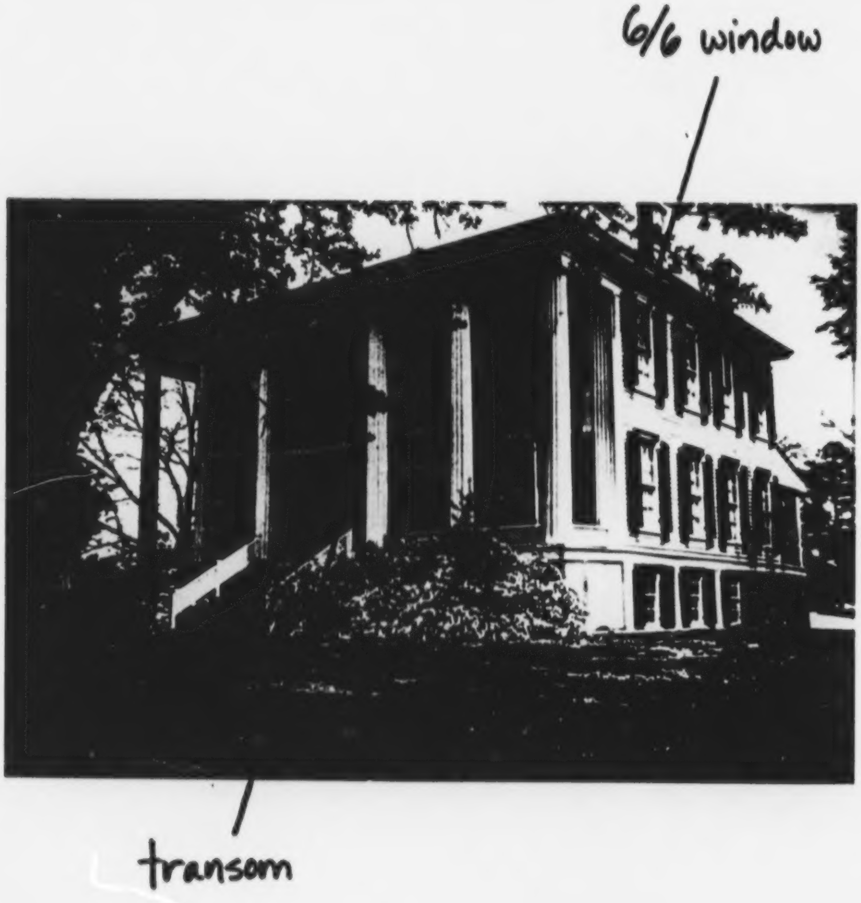
Italianate

Second Empire

## III. SLIDE #1

**Prior to the Civil War, many homes were designed to look like Greek and Roman temples. The features of the Greek Revival style are: 4 rooms over 4 rooms with central hall, hip roof, Doric columns, transom and sidelights around door, 6 over 6 windows, painted white to simulate marble.**

**The Greek Revival style reached its height of popularity before the Civil War. Due to the hardships of war, very little construction took place between 1860 and 1870. Life changed dramatically after the Civil War, and the homes people built reflect those changes.**

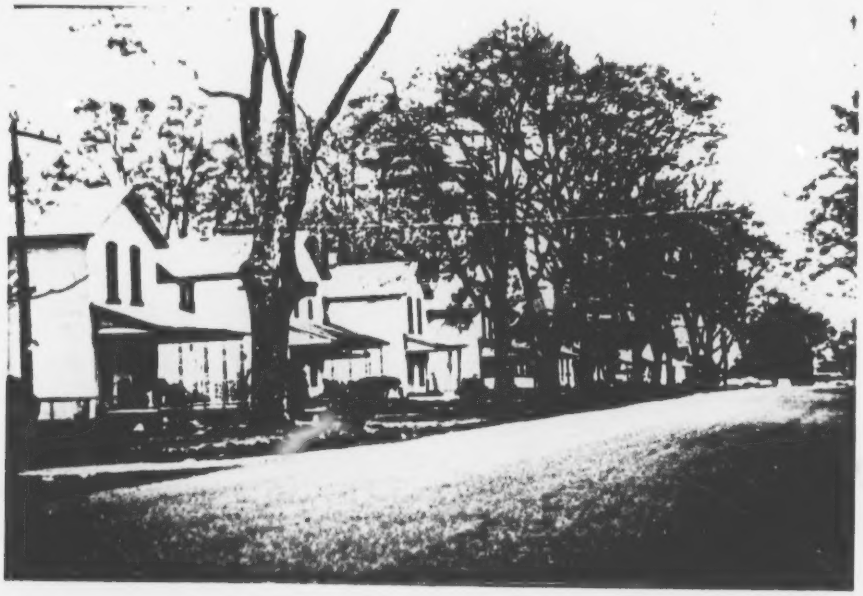


## III. SLIDE #2

The buildings we will study in this lesson are all examples of Victorian styles. This era is named for Queen Victoria, who ruled England during the growth of the machine age. This era, the Industrial Revolution, had a profound effect on all forms of technology, including architecture, throughout the world. The Victorian Era led to a new way of life for the average person. In this lesson, we will discuss the following influences on architecture during the Victorian era:

1. Shift from an agricultural to a more industrial economy.
2. Population shift from rural areas into the city.
3. Rise of the middle class.
4. Improved communication and transportation.
5. Machine age.

After the Civil War, the economy gradually became more industrialized. With the development of industry, people moved into towns for employment. New communities, industrial villages, were constructed to house the workers. This slide illustrates several features of an urban setting. Houses sit close together and look similar, and they sit close to the road on tree-lined streets.



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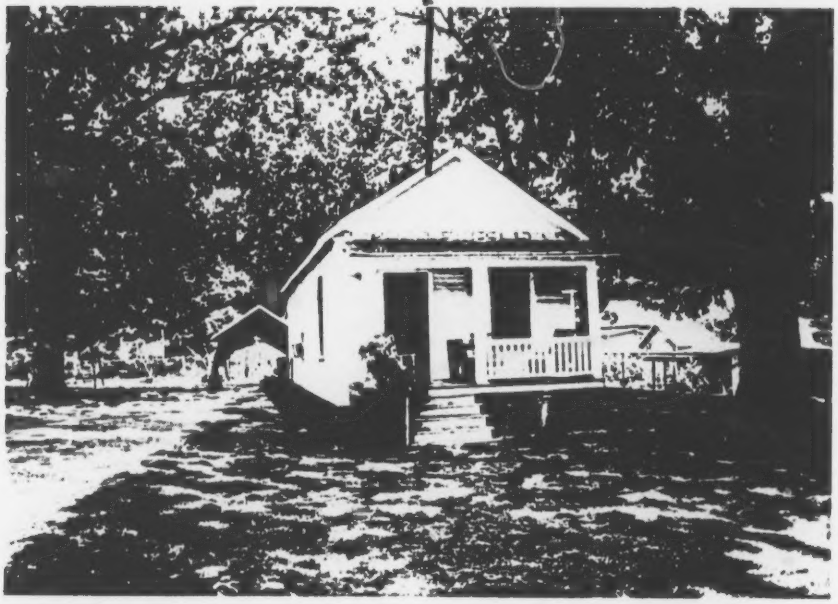
## III. SLIDE #3

This is a common form of an urban worker's house. It is called a shotgun. A shotgun is one-room wide and several rooms deep. It is called a shotgun because you could stand at one door and shoot a gun straight through the house. This type of house always has the gable end facing the road. At one time, Sears, Roebuck and Company sold houses by mail. In 1911, they advertised a shotgun house which was "ideal for industrial communities" with three rooms and no bath for $210. The shotgun made it easy to fit several houses on a small lot. We will learn about other Sears houses in the next lesson.

This shotgun has a brick pier foundation (with concrete blocks added later), a gable roof facing the road, a front porch with a shed roof, 6 over 6 windows, clapboard siding and most importantly, it is one room wide, several rooms deep.



gable roof

## III. SLIDE #5

In an age when people were no longer tied to the land to make a living and new jobs were created by industry, the middle class grew larger and wealthier. Intown Victorian neighborhoods were created as people moved to towns. When the trolley, or streetcar, provided a fast way to transport workers, people moved to the suburbs and commuted to the city to work.

Typically, Victorian neighborhoods had sidewalks and tree-lined streets. Houses sat close to the road with small, well-defined front yards often surrounded by a fence.

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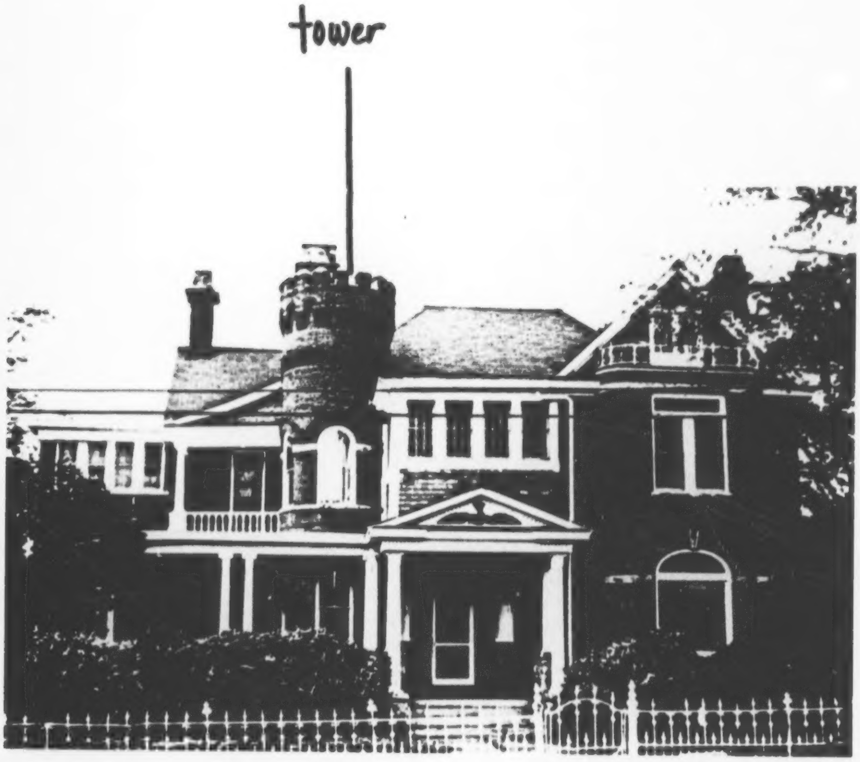
## III. SLIDE #4

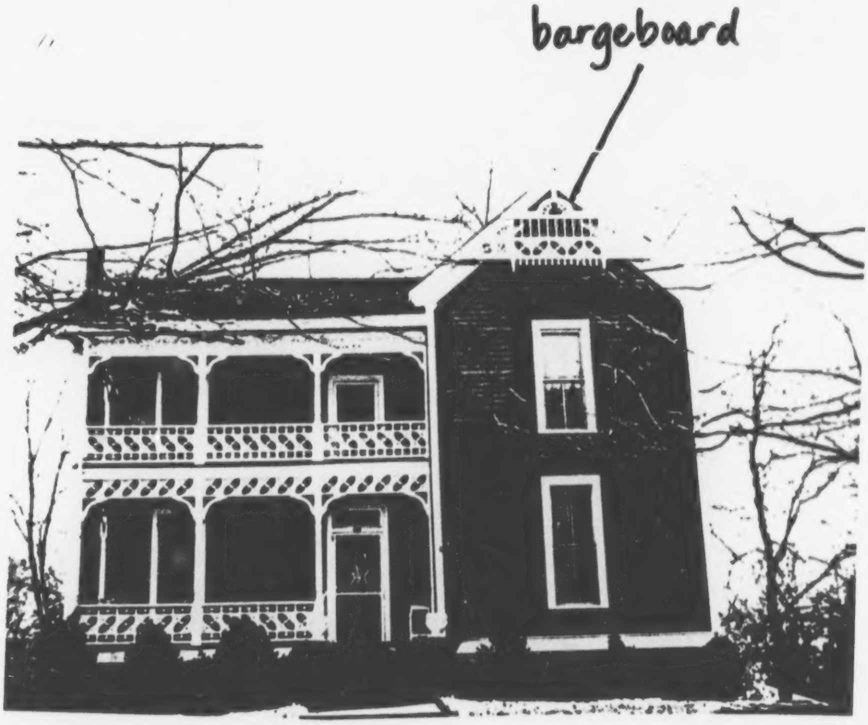
In contrast to the small, simple worker's houses, the homes of the industrialists were large and ornamental. For wealthy people, this was truly a time when a man's home was his castle. In fact, many Victorian homes were designed to look like medieval European castles with towers. Homes of the wealthy were often constructed of brick or stone.



## III. SLIDE #6

Homes were designed to reflect the tastes of the middle class. They were ornamented to reflect the imagination of their owners. Color was an easy way to individualize houses. Technological advances allowed paint companies to offer ready-mixed paint in a wide variety of colors which could be shipped throughout the country by train.

Porches and gables were a favorite area for decoration. The decorative ornament in the gable is called the bargeboard. Home owners could work with a local carpenter to create a variety of designs in the bargeboards. This bargeboard has the initials of the owner and the date of construction.



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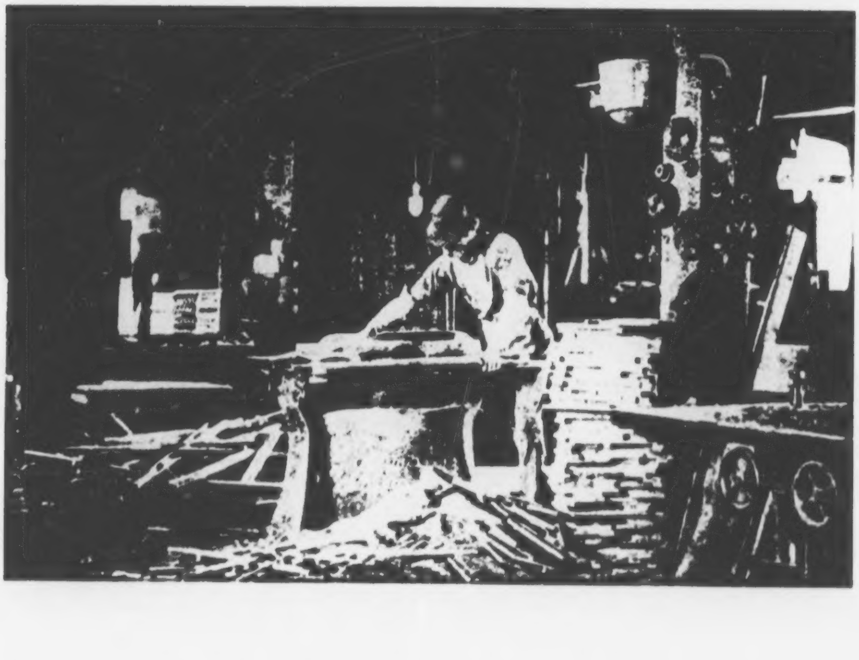
## III. SLIDE #7

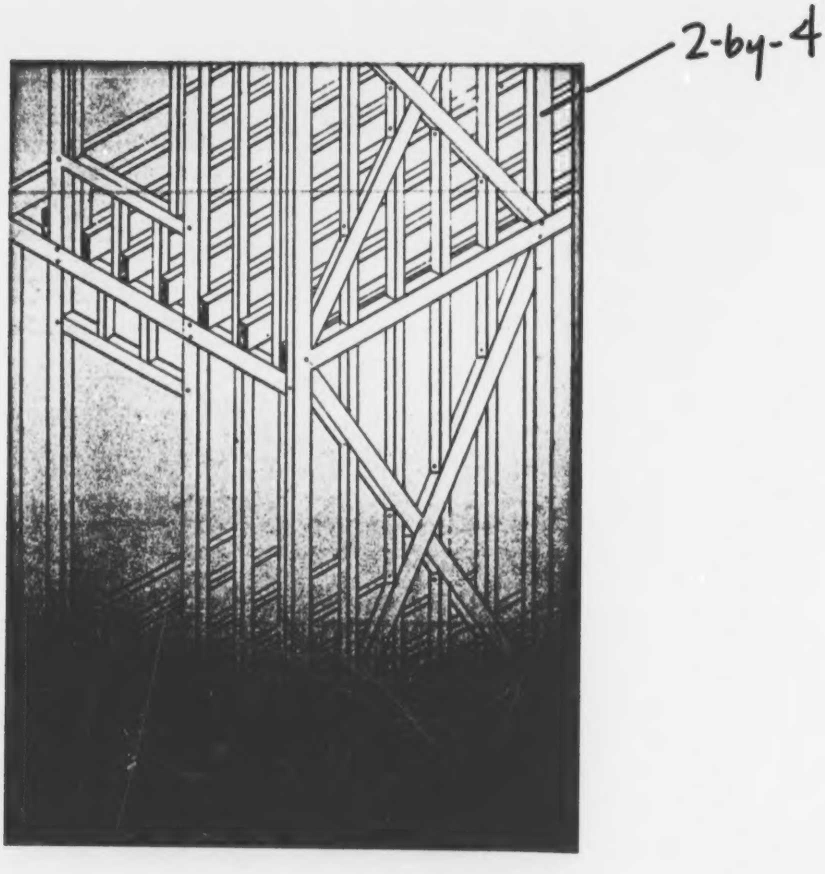
New woodworking machines made these decorations possible. These new steam-powered devices created decorative woodwork in four hours; this would have taken up to 110 hours to make by hand. Because it took less time to make these items, they became more inexpensive and therefore more affordable to the rising middle class.

These and many other new woodworking machines, such as shingle makers, were on display at the 1876 Centennial Exhibition in Philadelphia. This exhibition or fair was held to celebrate the 100th anniversary of America's independence. The exhibition was an important way of displaying new machines. People came from all over to learn about new labor-saving devices and new fashions. With the use of machines, houses could be made in less time, with less money, and yet have more decorative detail than they could if made by hand.



## III. SLIDE #8

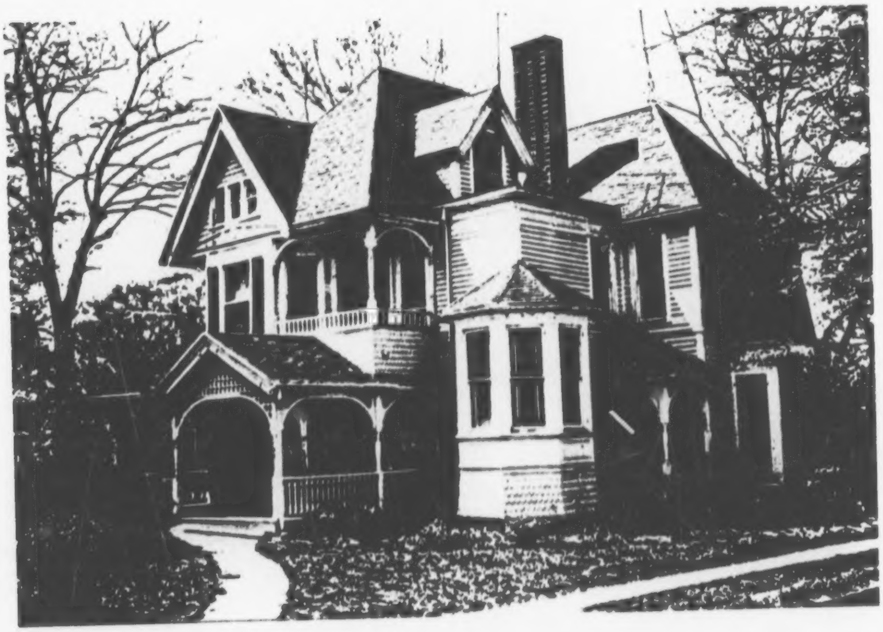
A new type of construction technique developed using standard 2-by-4s of machine-milled lumber. It was called balloon-frame construction. Balloon-framing is a light-weight framework of 2-by-4s held together with machine-made, wire-cut nails. Unlike heavy-timber construction, balloon frame construction does not have the hand-hewn sills and corner posts held together with mortise and tenon joints and wooden pegs; all wood is machine cut and light weight. The significance of balloon-framing is that it freed the builder from the square structure characteristic of homes until then. With small pieces of wood nailed together it became possible to make bay projections, towers, and irregular shaped rooms.



## III. SLIDE #9

The playful arrangement of exterior shapes and porches reflects a highly specialized interior. Each room had its own purpose. There was a fancy parlor for entertaining guests; another room might have been used for a library, while another room served as a children's play room. Servants had separate entrances and often separate stairs in two story houses. Victorians enjoyed privacy as no other generation had before them.

This Victorian house is one of thousands designed by George Barber of Knoxville, Tenn. Barber, who pioneered mail-order house plans, advertised over 59 designs for cottages and houses costing $500 to $8,000. The materials could be ordered pre-cut and partially assembled and delivered to any location by train. Up to 14 boxcars were needed to transport one of Barber's mail order houses.



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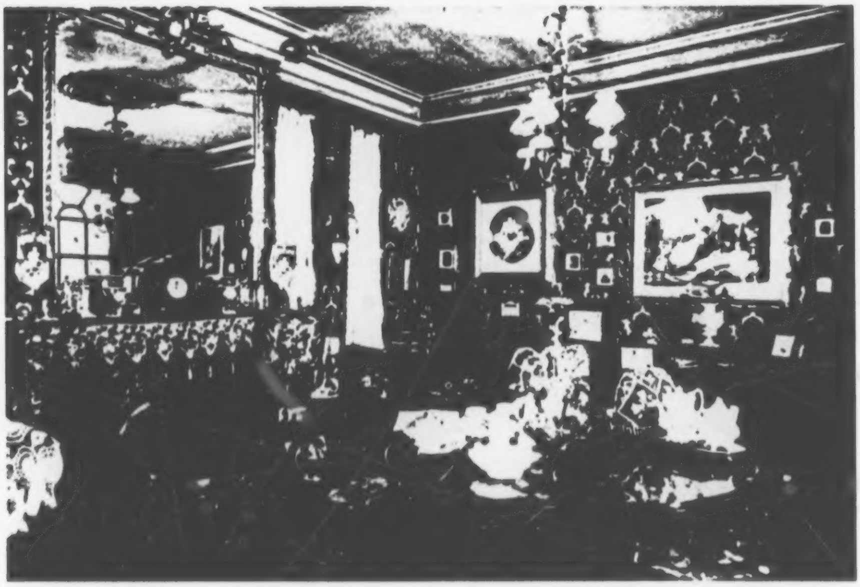
## III. SLIDE #10

The interior of Victorian homes were decorated according to the fashions defined in popular magazines such as House Beautiful, which still influences interior decoration today. Magazines instructed the middle class on how to imitate the rich on a budget. In an article entitled Much in a Little Space, one magazine said: "provided there is enough room to move about there is hardly likely to be too much in a room". Victorians filled their house with machine-made furniture, wallpapers, and dark rich fabrics.

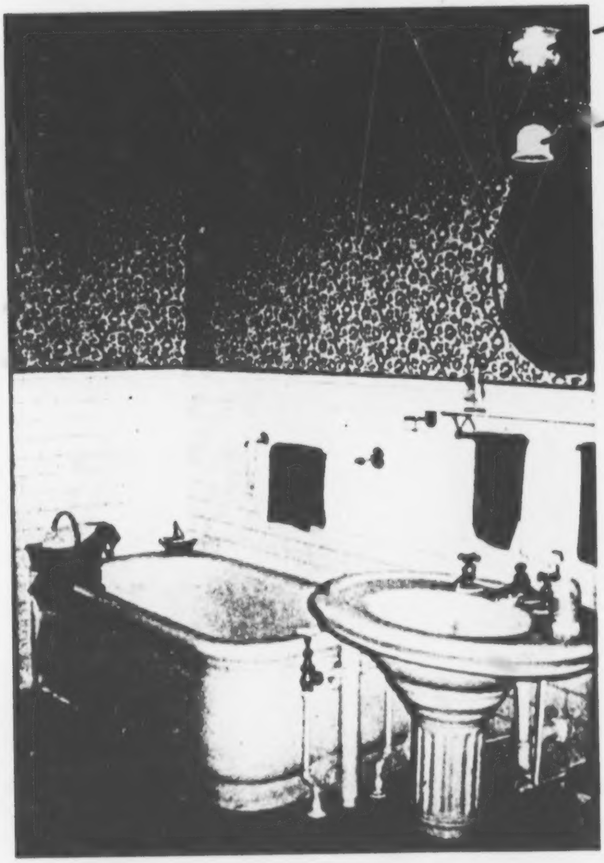


## III. SLIDE #11

It is hard to imagine what life was like before indoor plumbing and electricity. Victorians were the first to enjoy indoor plumbing. Homes of the wealthy featured bathrooms with hot and cold running water.

Gaslights illuminated Victorian homes until the advent of electricity. Many poor people did not have electricity until the 1930s, and some rural areas were without these amenities which we take for granted until the 1950s.

Gaslights have globes which face upward, while electric fixtures face downward. This is a fixture which has both gas and electricity.



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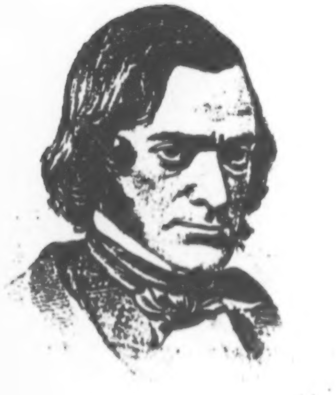
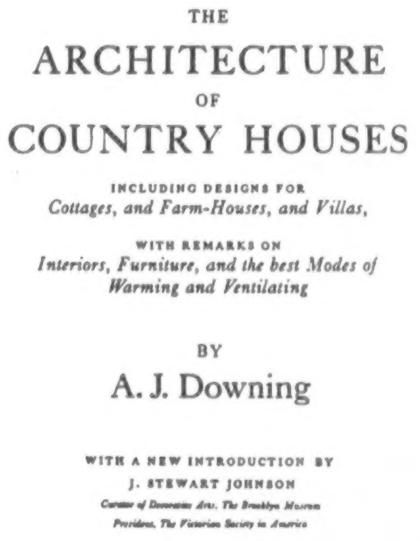
## III. SLIDE #12

We have examined the major characteristics of Victorian buildings; now we will learn to identify some common Victorian styles, such as: Victorian Gothic, Queen Anne, Steamboat Gothic, and the Mansard style. First, it is important to understand that the Greek Revival style was out of fashion, thanks in great part to a man named A J. Downing. He led the fight in the "Battle of Styles", when Gothic Revival replaced Greek Revival as the most popular architectural image.

A.J. Downing was a landscape architect from New York State who wrote several popular books in the 1840s and 1850s. Downing thought homes should be picturesque, that they should blend into the landscape. He hated the Greek Revival style because it sat like a white marble cube on a hill. Instead of white, which he considered a glaring color, Downing thought houses should be painted in natural, muted colors like gray and tan, buff and fawn. Instead of being symmetrical and square, he thought houses should be irregular. His popular books depicted various house plans.



*Andrew Jackson Downing (1815-1852)*



THE
ARCHITECTURE
OF
COUNTRY HOUSES

INCLUDING DESIGNS FOR
*Cottages, and Farm-Houses, and Villas,*

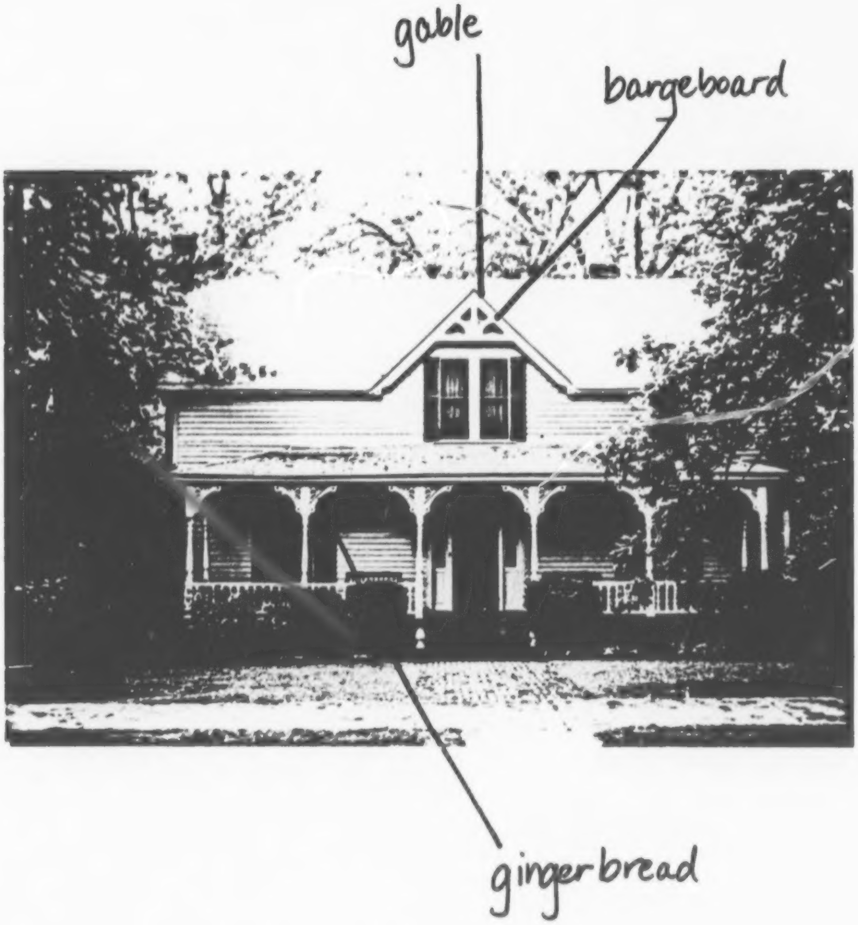
WITH REMARKS ON
*Interiors, Furniture, and the best Modes of*
*Warming and Ventilating*

BY
A. J. Downing

WITH A NEW INTRODUCTION BY
J. STEWART JOHNSON
*Curator of Decorative Arts, The Brooklyn Museum*
*President, The Victorian Society in America*

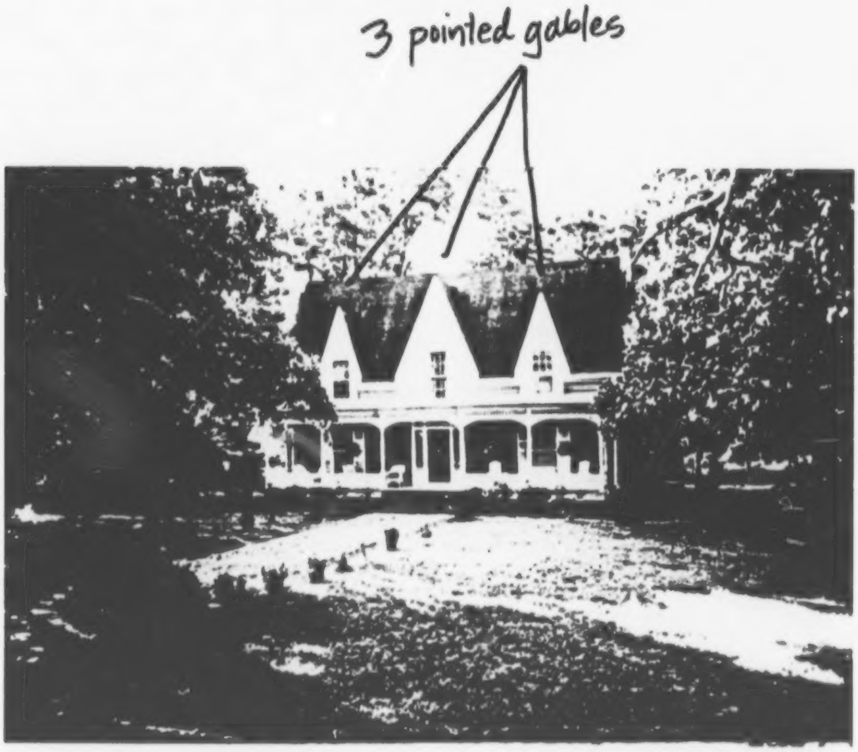
## III. SLIDE #13

The Victorian Gothic style was one of the first to become popular. Painted in muted colors, this Victorian Gothic house has one central gable with a bargeboard. The porch has decorative woodwork called gingerbread. Gingerbread trim is flat wood and has shapes cut out with a jigsaw.



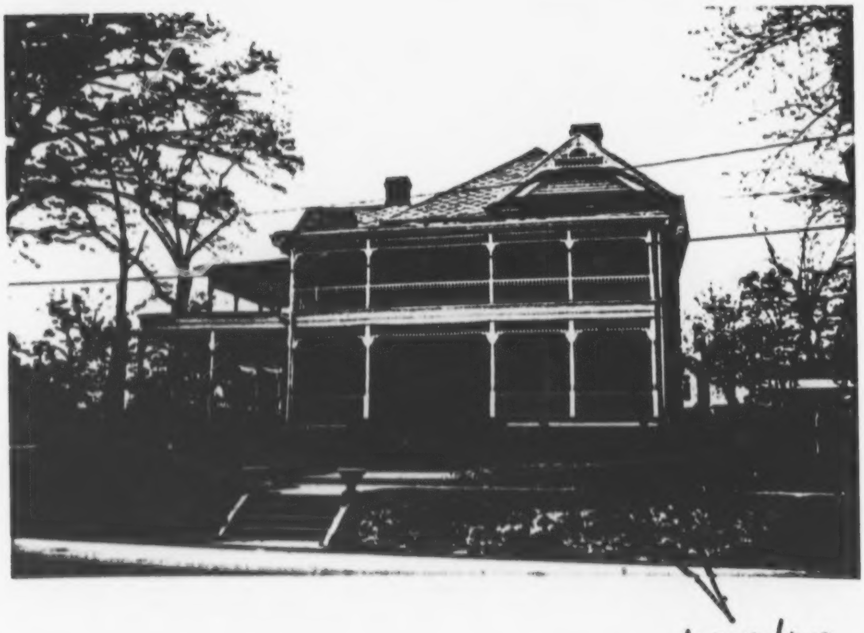
## III. SLIDE #14

This is also an example of the Victorian Gothic style, but this house has three pointed gables instead of one. This style is a romantic revival using vertical forms to evoke designs found on medieval buildings. Downing thought the irregular outlines of these houses were highly picturesque and harmonious with nature. The Victorian Gothic style is also called the pointed style because the pointed gables are the main feature of the style.



## III. SLIDE #15

Popular books had a great influence on architecture. The Steamboat Gothic style for example, is designed to evoke images of Mark Twain and the Mississippi steamboat era. What makes this house look like a steamboat? The main feature of the Steamboat Gothic style is the porch. It has two decks with decorative railing above and below.



decorative
railing

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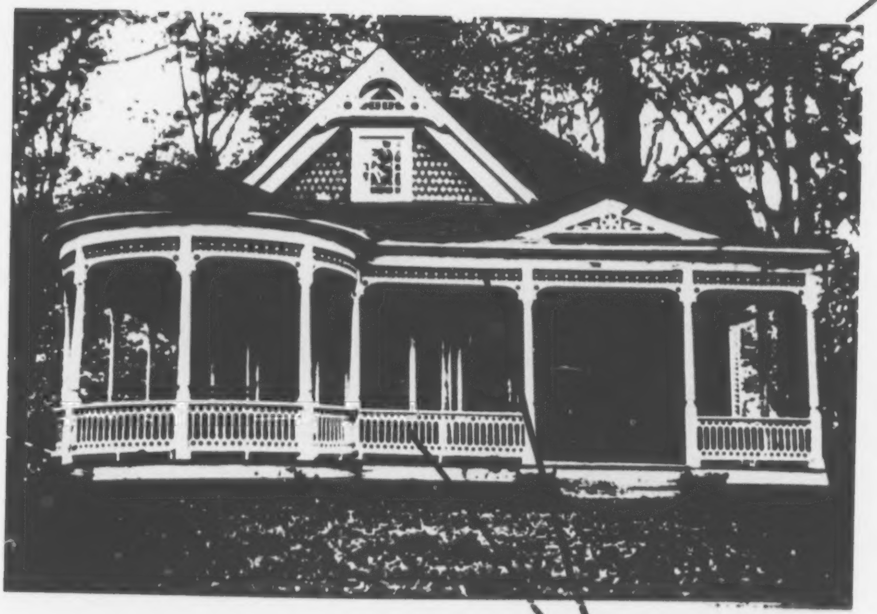
## III. SLIDE #16

Steamboat Gothic style houses come in many shapes and sizes. The one feature they all share is the porch with decorative railing, above and below. This one story Steamboat Gothic style house has a wheel in the pediment with stylized waves to each side.

waves
and wheel



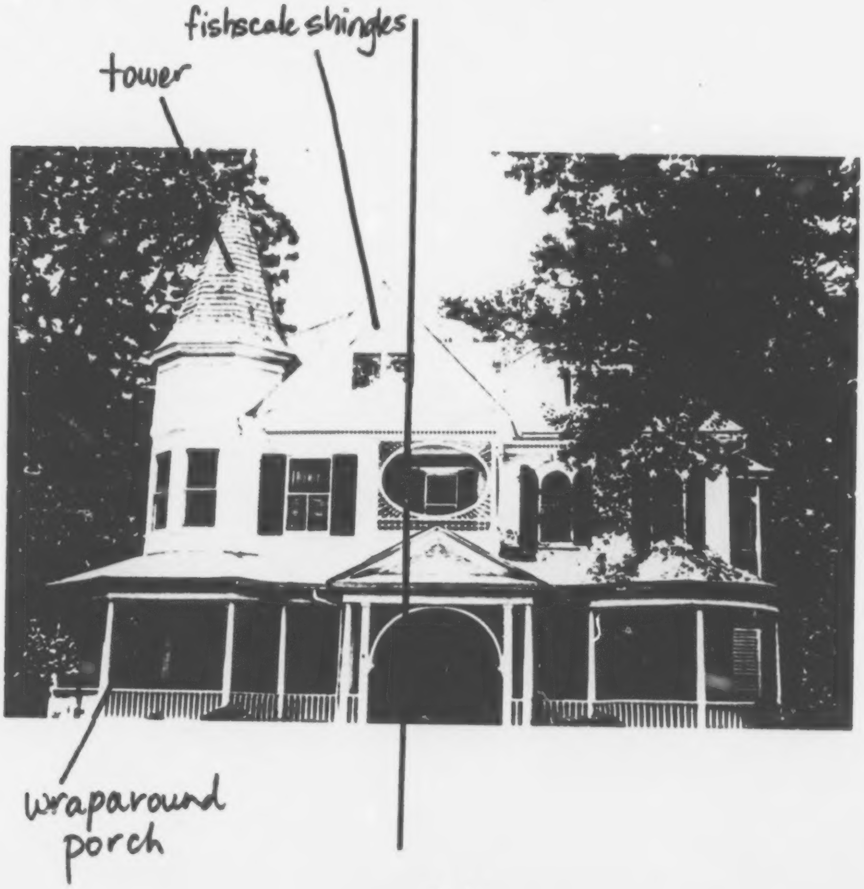
railing at
top and bottom

## III. SLIDE #17

In the High Victorian era of the 1890s, a time when buildings were very decorative, the Queen Anne style became popular. This style is easy to identify; usually it has a tower, is two stories tall, windows of every shape and size, a decorative wrap-around porch, a very decorative surface texture with fish scale shingles.

Name the construction technique used to build this house. Balloon-frame construction, made with 2-by-4's and machine-made nails. Balloon-frame construction is lightweight and allows homes to be built in irregular shapes. Buildings with irregular shapes are often asymmetrical. You can tell if a building is asymmetrical by drawing a line through it. If the two sides do not match it is asymmetrical. Symmetrical means the opposite. It means the halves match.

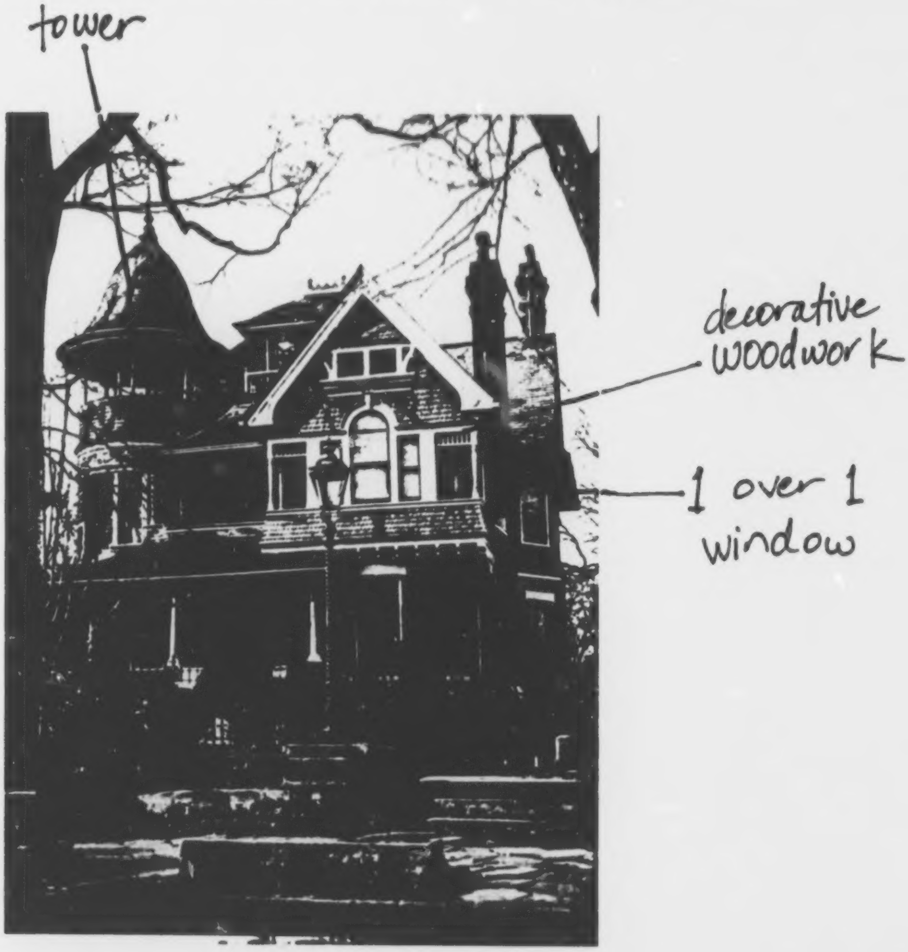
What does the exterior shape of this house tell us about the interior? The playful arrangement of exterior shapes reflects a highly specialized interior; each room has its own function.



## III. SLIDE #18

The Queen Anne style was one the most popular Victorian styles. This decorative style was applied to cottages and mansions alike. Ask a student to come to the slide and identify the Queen Anne features of this house: the tower, decorative wood work, and asymmetrical shape.

Windows provide a clue to the date a house was built. Before the Victorian era houses, window sashes had many small panes of glass. Notice these windows have one large pane of glass in each sash. Around 1880, new developments in glass-making technology allowed for single pieces of glass to be rolled into large plates. Windows in Victorian houses, with one large pane of glass instead of several smaller panes, admitted more light and air and provided scenic views. These tall windows, called 1 over 1 windows tell you that this is a Victorian house and was probably built after 1880.



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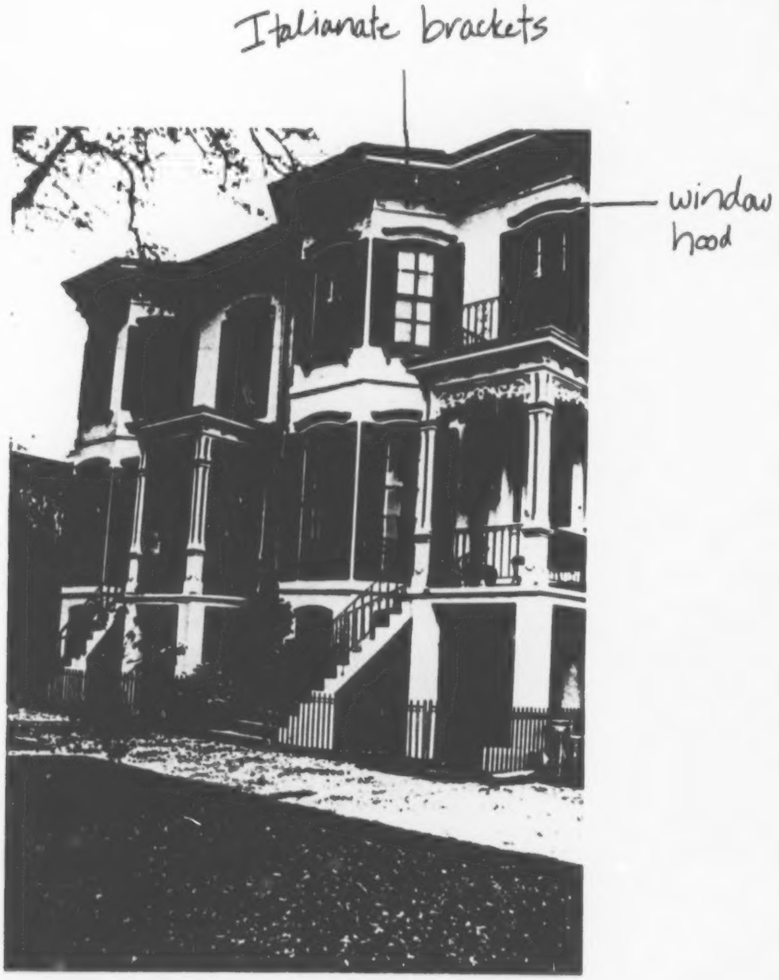
## III. SLIDE #19

With improved transportation and communication in the Victorian era, the world grew smaller. Ideas and styles spread across the ocean very quickly. The style we see in this slide uses Italian elements. It is called the Italianate style. These homes are called rowhouses. Rowhouses are made up of a series of individual houses placed side by side with shared walls, each having a separate entrance. Typical features of the Italianate style are decorative brackets under the roof and arched window hoods.



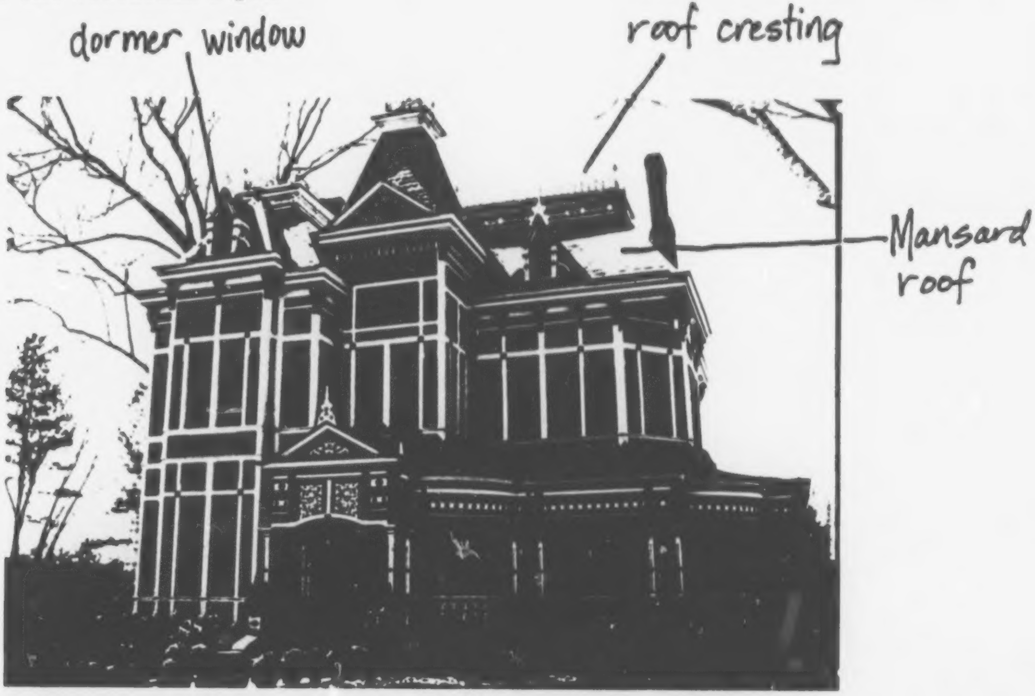
## III. SLIDE #20

Another fashionable Victorian style was called the Second Empire style. This style is named for a period of French history when Napoleon the Third ruled. During this Second Empire, Paris was modernized and many buildings were constructed with mansard roofs.

The main feature of the Second Empire style is the steep mansard roof which has dormer windows (window in the roof) and decorative roof cresting (metal rails). The Mansard roof, it has been said, may have developed as a clever way of avoiding extra taxes. In Paris, buildings were taxed according to how many stories they had. The mansard roof was steep enough to have rooms, but it did not count as an extra floor.

Around 1900, there was a reaction against the excessive ornamentation of the high Victorian Era. Americans came to view all the fancy woodwork as old-fashioned and out of style. The Second Empire house later became associated with haunted houses. Hollywood used the Second Empire style in scary movies such as Psycho, and it was the home of spooks such as the Munsters and the Adams family on television.

Over the years, many Victorian homes have been neglected and demolished. In the 1970s, Americans once again became interested in Victorian design. Many deteriorated homes have been destroyed, and now new homes are being built in the Victorian style.



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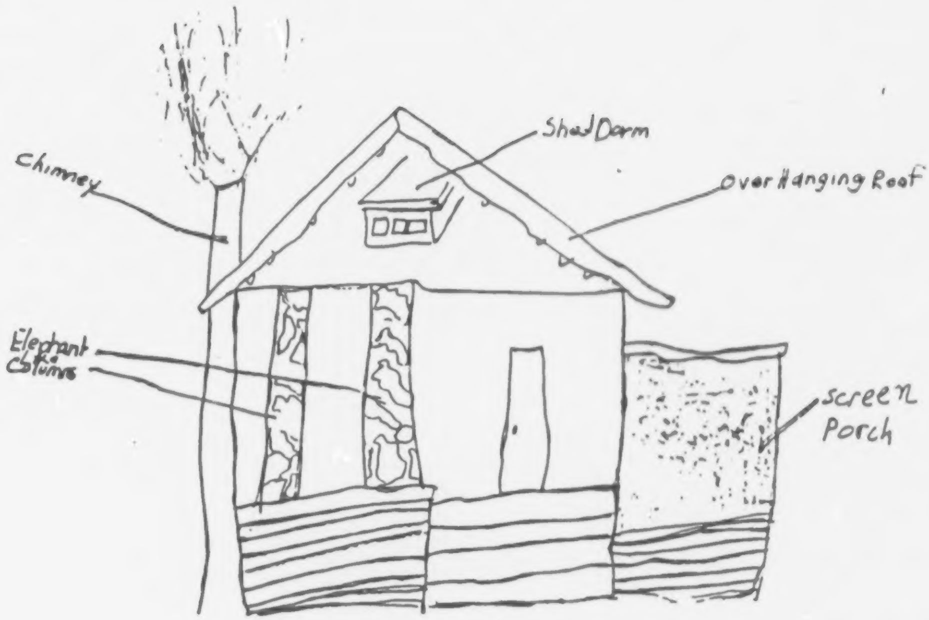
Bruce Johnson Craftsman Bungalow Age: 9


Shed Dorm
Over Hanging Roof
Chimney
Elephant Columns
Screen Porch

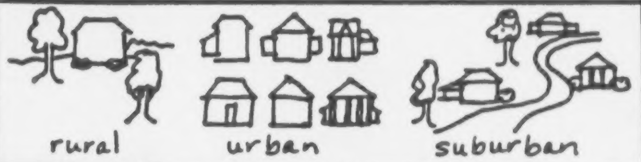
## LESSON FOUR

# VISUAL SURVEY FORM: HISTORICAL REVIVAL

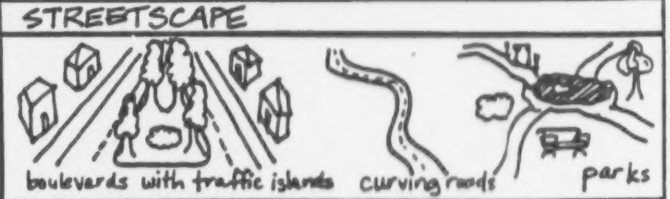
Directions: Circle the details that are closest to what you see.

SITE

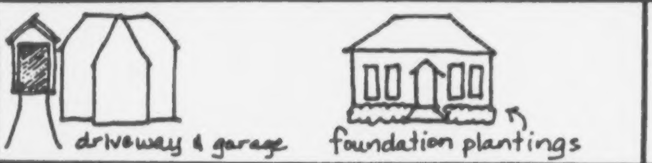
LOCATION


rural
urban
suburban

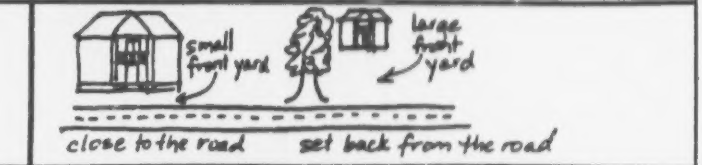
STREETSCAPE


boulevards with traffic islands
curving roads
parks

LANDSCAPE

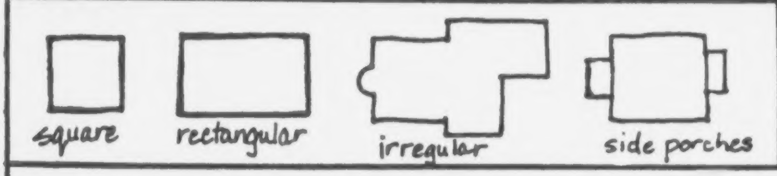

driveway & garage
foundation plantings

SETBACK

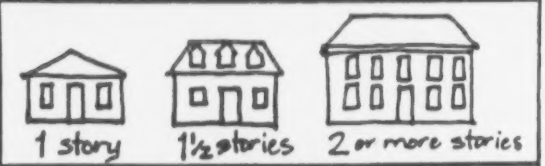

small front yard
large front yard
close to the road
set back from the road

FORM

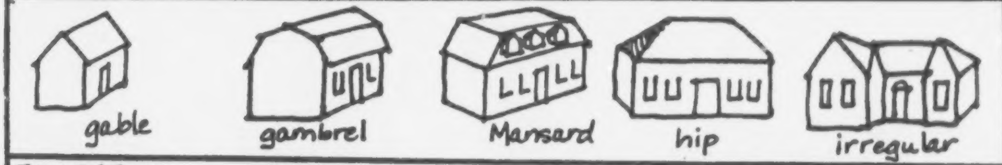
PLAN


square
rectangular
irregular
side porches

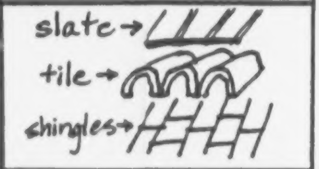
HEIGHT


1 story
1½ stories
2 or more stories

ROOF

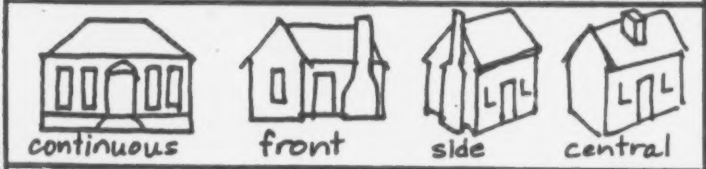

gable
gambrel
Mansard
hip
irregular

MATERIALS

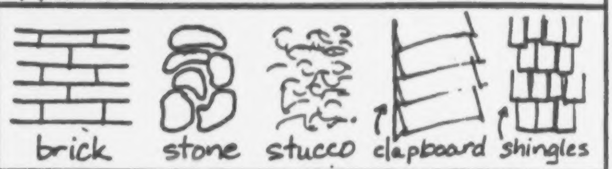

slate →
tile →
shingles →

STRUCTURE

FOUNDATION CHIMNEY

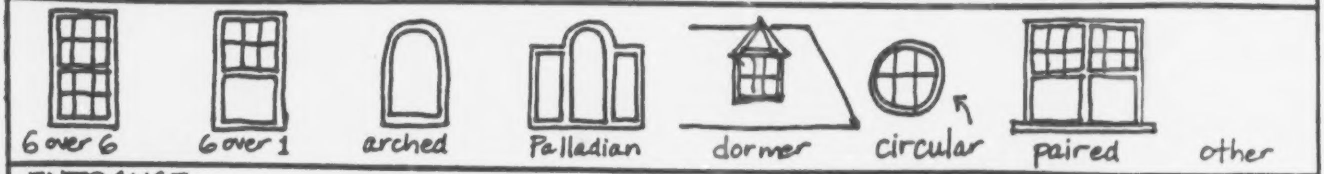

continuous
front
side
central

MATERIALS

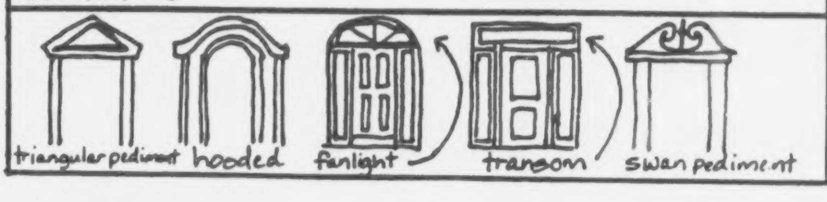

brick
stone
stucco
clapboard
shingles

DETAILS

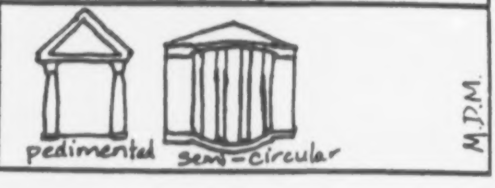
WINDOWS


6 over 6
6 over 1
arched
Palladian
dormer
circular
paired
other

ENTRANCE


triangular pediment
hooded
fanlight
transom
swan pediment

PORCH (PORTICO)


pedimented
semi-circular
M.D.M.

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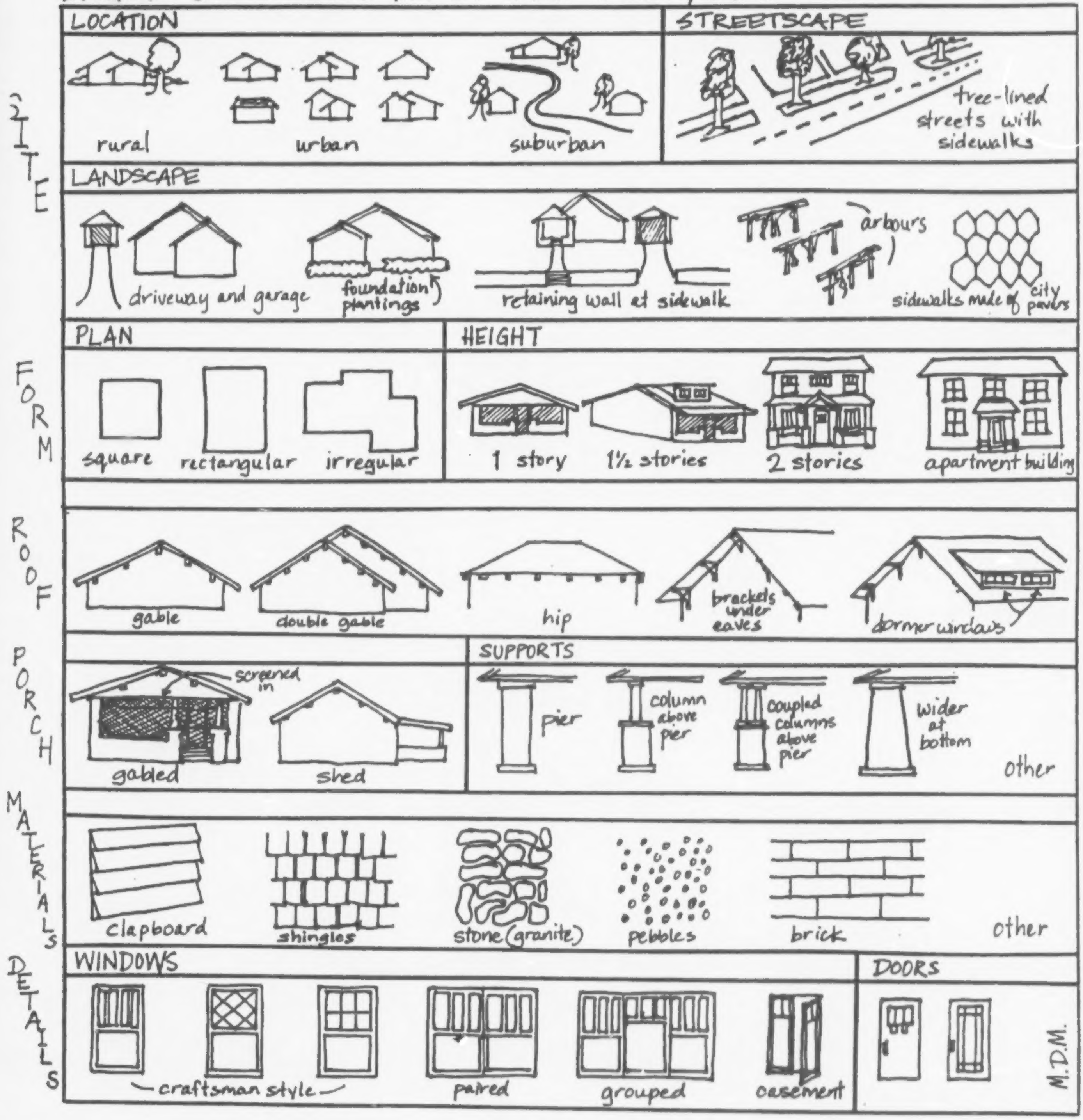
# VISUAL SURVEY FORM: CRAFTSMAN AND PRAIRIE

Directions: Circle the details that are closest to what you see.


SITE
LOCATION
rural
urban
suburban
STREETSCAPE
tree-lined streets with sidewalks
LANDSCAPE
driveway and garage
foundation plantings
retaining wall at sidewalk
arbours
sidewalks made of city pavers
FORM
PLAN
square
rectangular
irregular
HEIGHT
1 story
1½ stories
2 stories
apartment building
ROOF
gable
double gable
hip
brackets under eaves
dormer windows
PORCH
screened in
gabled
shed
SUPPORTS
pier
column above pier
coupled columns above pier
wider at bottom
other
MATERIALS
clapboard
shingles
stone (granite)
pebbles
brick
other
DETAILS
WINDOWS
craftsman style
paired
grouped
casement
DOORS
M.D.M.

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## SLIDE LESSON IV: 20TH CENTURY HOMES

## HISTORICAL REVIVAL & CRAFTSMAN (1900-1930)

Terms to list on the blackboard:

Columbia Expo of 1893

gambrel roof

continuous foundation

half-timber

stucco

Gustav Stickley

### STYLES

Neo-Classical

Georgian

Cape Cod

Dutch Colonial

Spanish Colonial

English Tudor

Craftsman

Bungalow

American Four-square

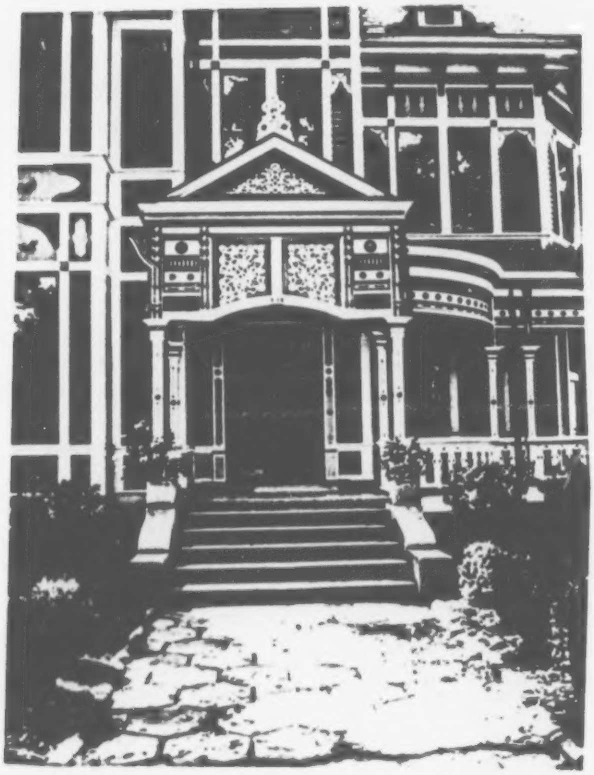
Ranch

## IV. SLIDE #1

This house, with all of its machine-made ornamentation, expresses the Industrial Revolution and the Victorian era.

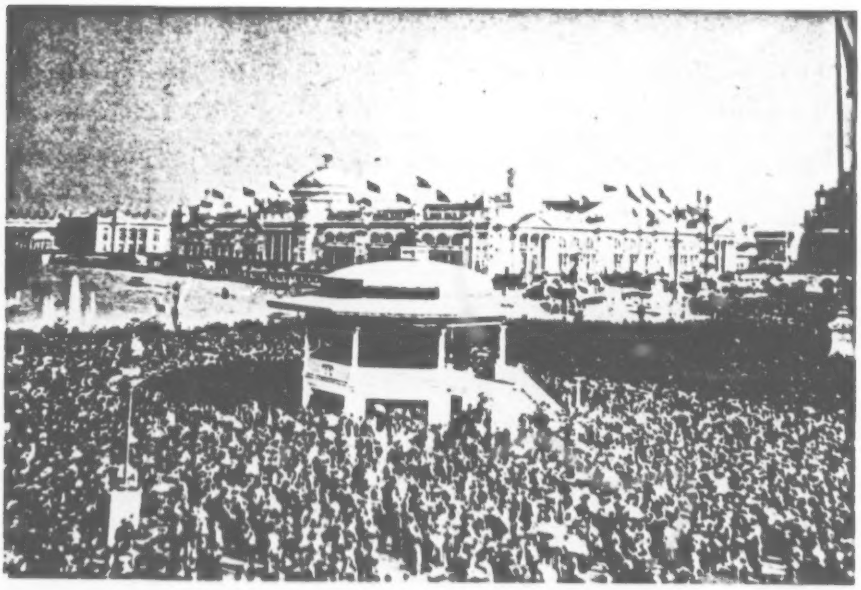
By 1900, the Victorian style was no longer fashionable. Americans reacted against the excessive machine-made ornamentation of the Victorian style. After the turn of the century, architectural fashion went into two directions. The first direction was the revival of styles of the past. They are called Historical Revival styles. The second direction was the creation of a totally new style, called the Craftsman style.

First we will discuss the Historical Revival styles.



## IV. SLIDE #2

In 1893, a fair called the Columbia Expo was held in Chicago. It had a great influence on architecture. The Columbia Expo of 1893 introduced the Neo-Classical style to thousands of Americans. Some of the nation's most prominent architects designed exhibition buildings at the fair in the Neo-Classical style. Neo means "new", and Classical refers to a mixture of Roman and Greek features. These exhibition buildings, which were painted white and had classical columns, Roman arches, pedimented porticos and domes, captured the American imagination.



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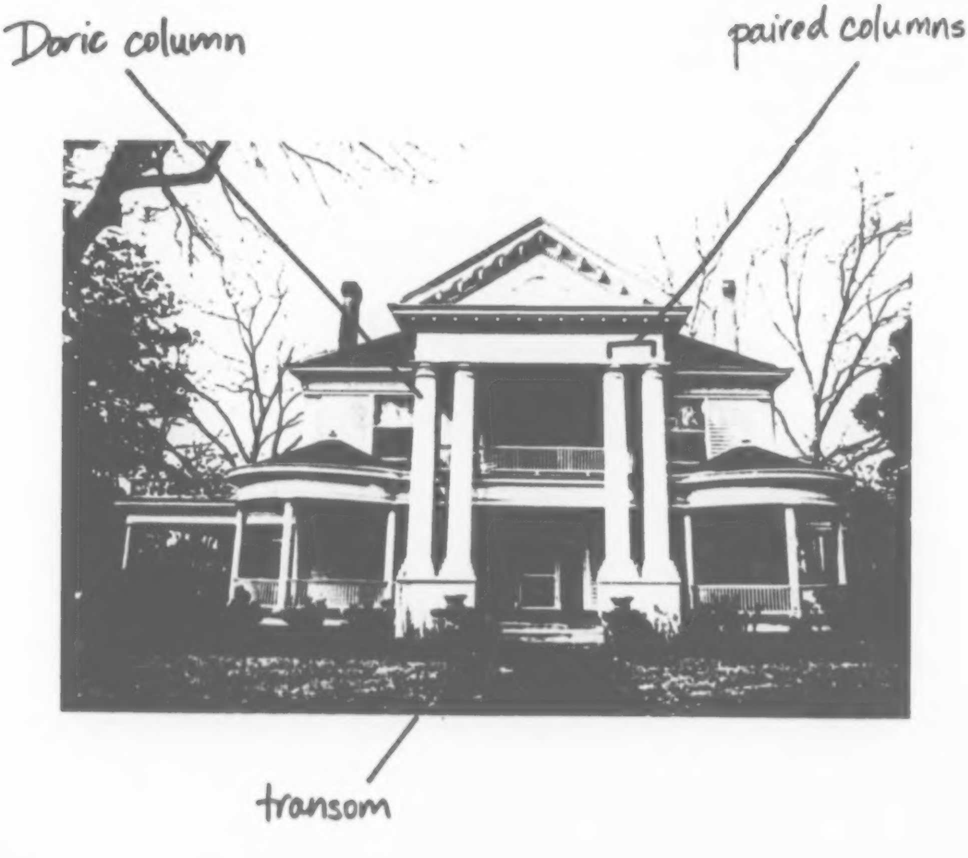
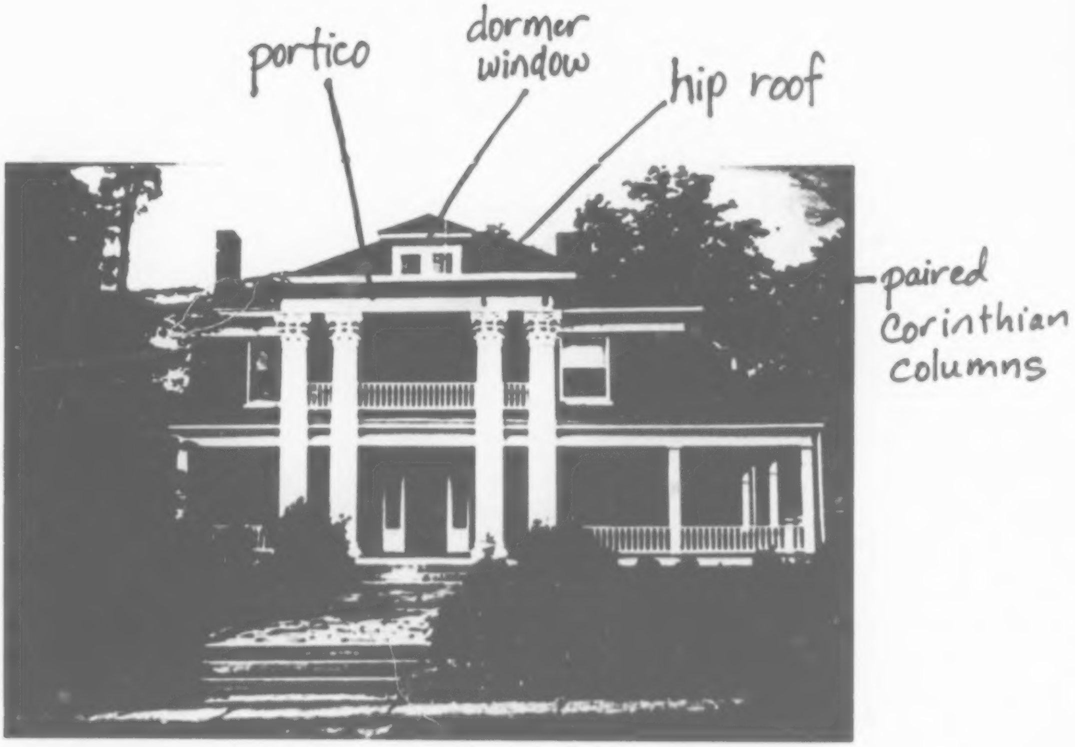
## IV. SLIDE #3

The reaction against the Victorian style took the form of looking back and reviving the earlier Greek Revival and Federal styles, popular before the Civil War. It is easy to distinguish a Neo-Classical building from an earlier Greek Revival building. Unlike Greek Revival buildings, Neo-Classical buildings often have paired columns, large windows with modern glass, and two side porches. Neo-Classical buildings are usually more ornamental than earlier classical styles. The classical features in this slide are: Doric columns, the use of white to simulate marble, symmetry, and transom window over the door.



## IV. SLIDE #4

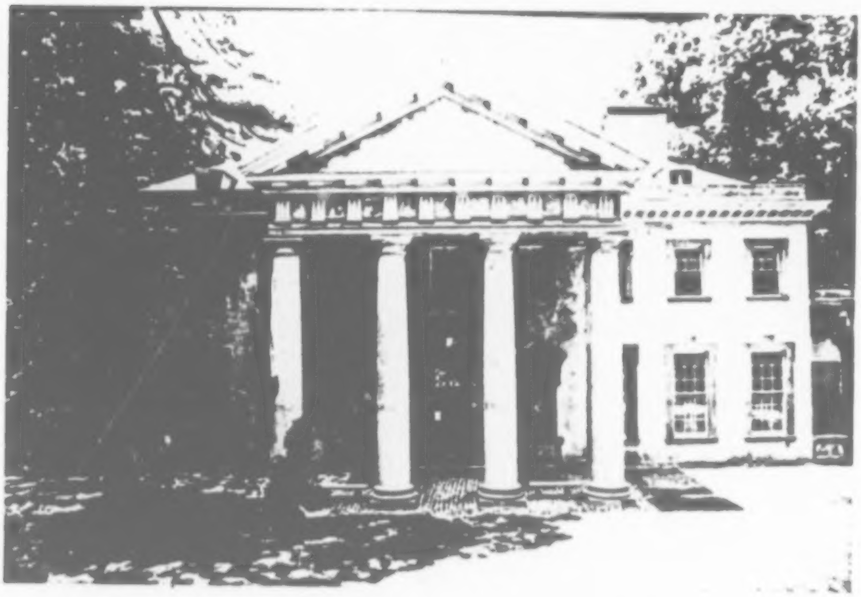
This building is another example of the Neo-Classical style. It has a portico with paired Corinthian columns. The ornamental, leafy capitals of the columns are made of plaster or terra cotta (clay), cast in a mold. The windows have large panes of glass. It has a hip roof and a dormer window. After 1900, pier foundations were often replaced by continuous brick or stone foundations, and basements were added to houses.


portico
dormer window
hip roof
paired Corinthian columns

## IV. SLIDE #5

During the Historical Revival period, many American architects traveled to Europe to study historic architecture. They learned to design buildings which looked centuries old. Architects also learned principles of historical design by studying architectural books such as Andrea Palladio's work, The Four Books of Architecture that was published in the 16th century.

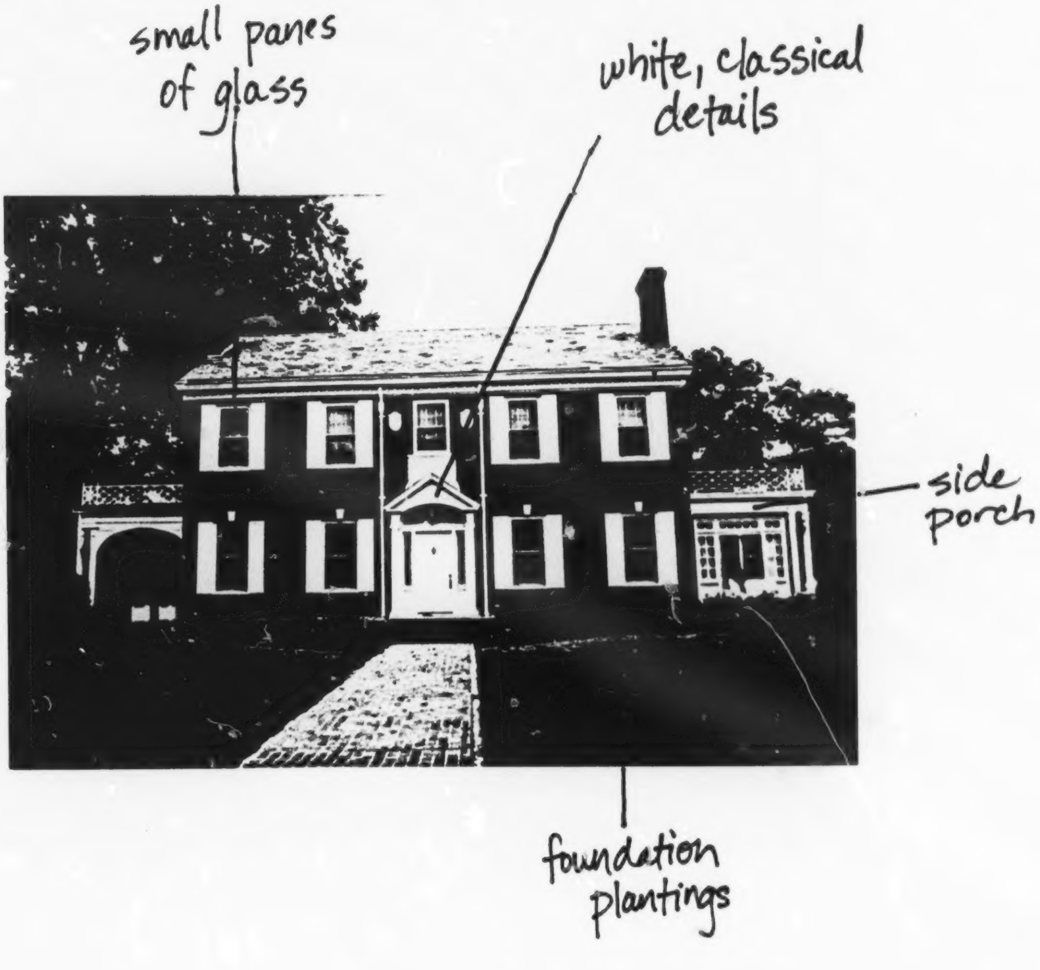
The "Swan House" in Atlanta (now a museum of the Atlanta Historical Society) was designed in 1928 by architect Philip Trammell Shutze. He described his approach by saying, "You don't copy the past; you adapt the beauty of the past to our present needs, and in the process, you make each design uniquely your own." Wealthy families could build Historical Revival houses that looked centuries old, yet had all of the latest conveniences. Historical details, such as windows with small panes of glass instead of large plate glass, made it difficult to tell the Revival style buildings from older buildings.



## IV. SLIDE #6

American Colonial styles were revived as Americans romanticized their own past. Red brick colonial houses similar to those found in Williamsburg became very popular. This style is called the Georgian style, named after King George who ruled the British empire when America was a colony.

Georgian homes are usually simple, red brick boxes with white, classical details around the door. This Georgian Revival house has windows with small panes of glass. It is a red brick box with a porch off to each side. The house is landscaped with foundation plantings.


small panes of glass
white, classical details
side porch
foundation plantings

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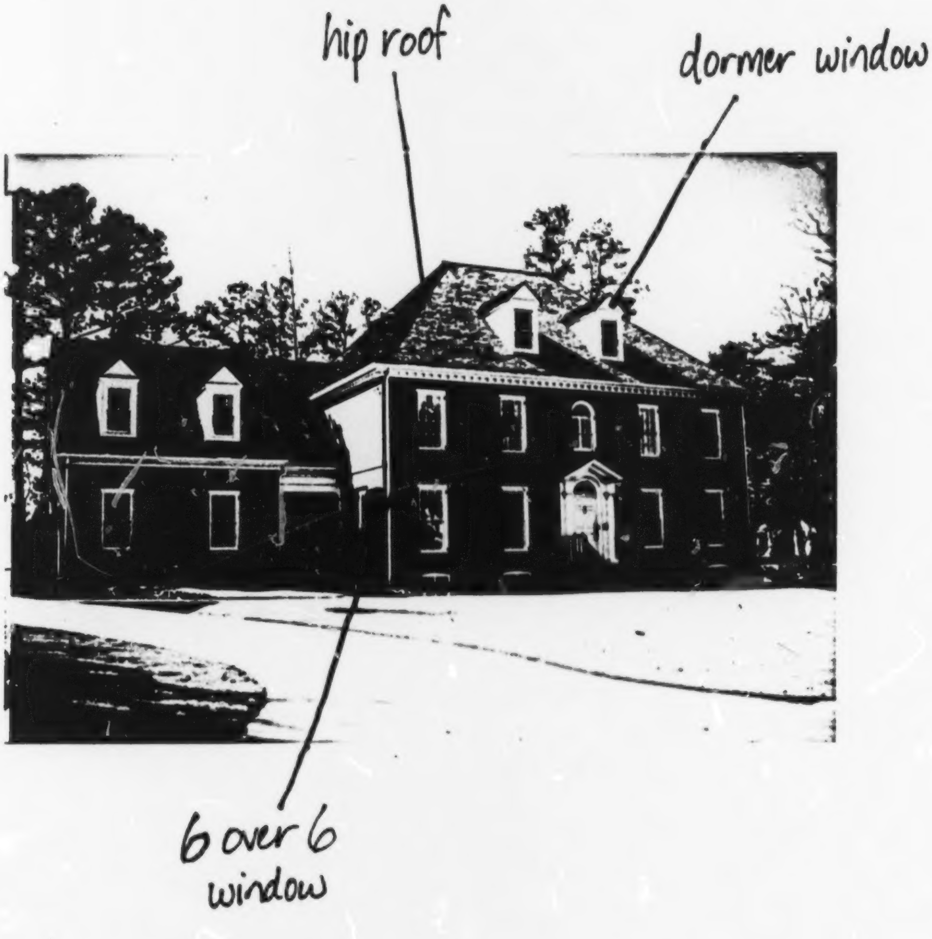
## IV. SLIDE #7

Today homes designed to evoke images of our colonial heritage are still popular. Although they are modern homes, they are designed to look several hundred years old. To achieve the look of age, builders create rambling forms that looked as if they had been added onto over the years.

This Georgian Revival house has a hip roof with dormer windows. It has 6 over 6 windows which are more accurate reproductions of earlier windows since they use several panes of glass rather than larger plate glass.



## IV. SLIDE #8

At one time, Sears, Roebuck and Company was in the business of selling mail-order houses. The advertisement in the Sears catalogue for this Dutch Colonial house read:

> "The Ashland, a two-story home of Dutch colonial adaptation, is one of our most distinctive designs...Typical of Dutch colonial architecture are the beautiful downward sweep roof, the dormer windows, the sheltered porch and the snow-white columns. Each architectural feature has its own historical or modernized background, even to the wood shingled roof, red brick chimney, cypress siding and divided window lights."

In 1927 this house sold for $2,847. It could be sent to any place in America by rail. It was sent pre-cut and partially assembled, ready to construct on the buyer's lot. Everything that was needed to build the house was included, such as: plumbing, lighting fixtures, hardware, doors and windows, stairs, walls, and even wallpaper.

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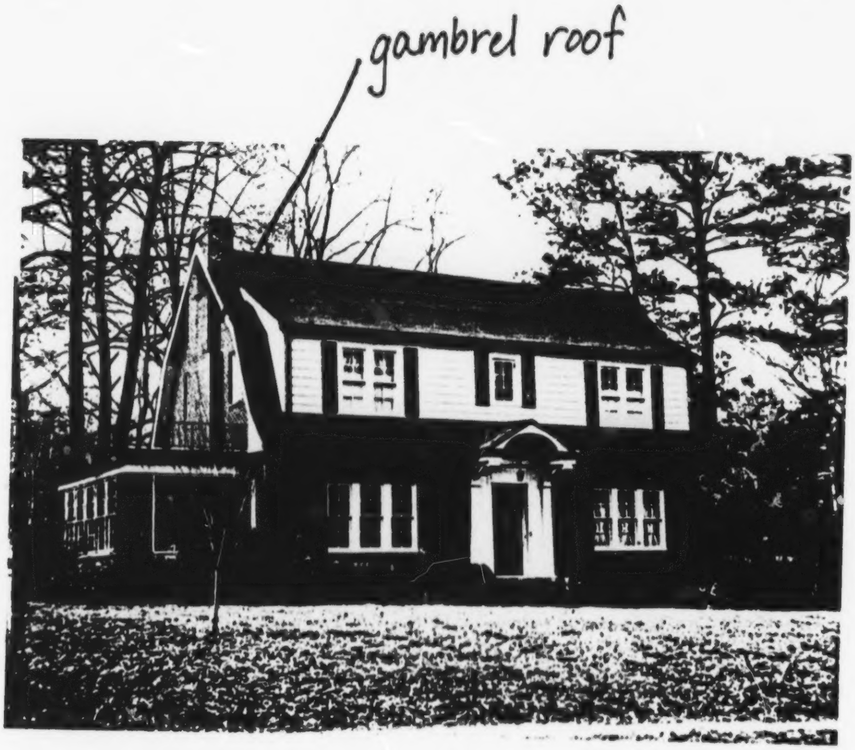
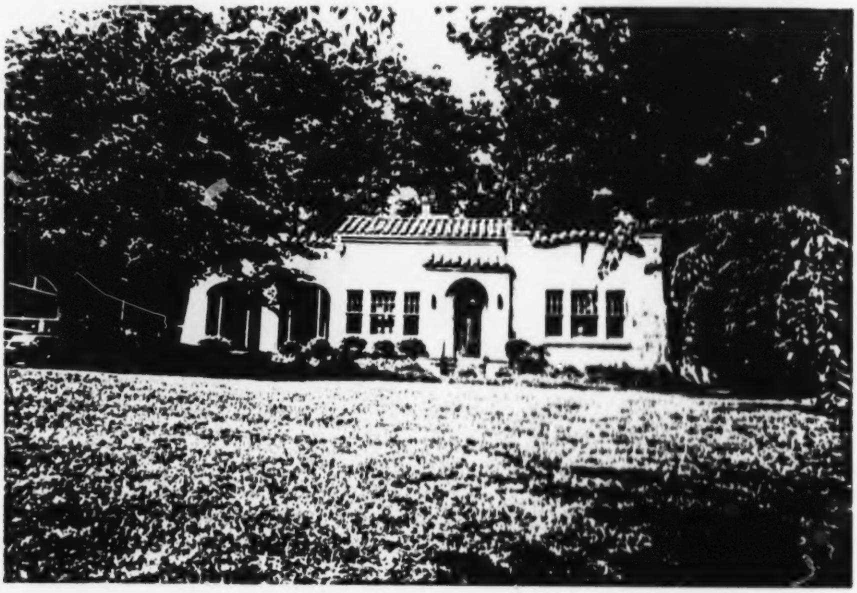
## IV. SLIDE #9

The Georgian Revival and the Dutch Colonial Revival were two of the most popular revival styles in America. This Dutch Colonial Revival house has a typical gambrel roof. The gambrel roof is a gable roof with two slopes.



## IV. SLIDE #10

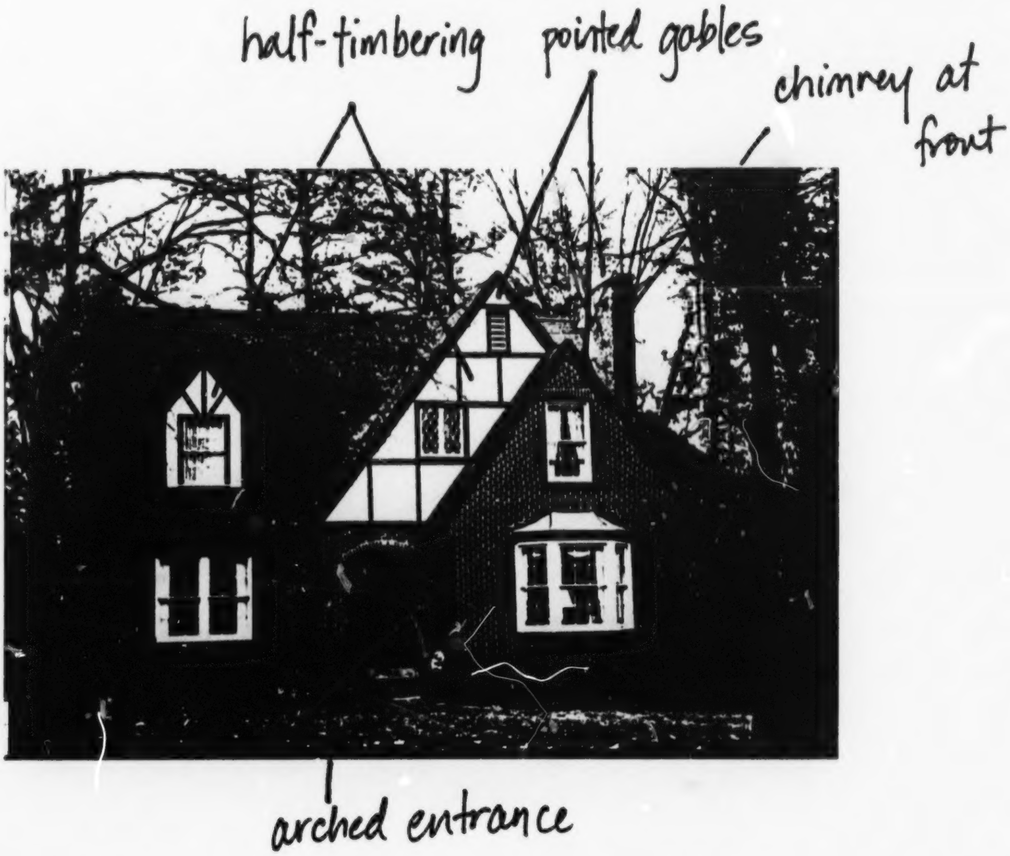
The Spanish Colonial Revival style also became a popular architectural style. At first the style was popular in Florida and California, and it spread throughout the rest of the country as people saw the Spanish style on their vacations. Spanish Colonial Revival houses are usually covered with stucco, which is a type of exterior plaster. Spanish Colonial homes usually have red tile roofs which extend beyond the wall. These homes often have arched windows and doors.



## IV. SLIDE #11

Not only were Americans rediscovering their own past, but they were recreating their shared heritage with England as well. The English Tudor style became one of the most popular styles of the 1920s, 30s and 40s in the United States. It is very easy to identify the English Tudor style. First look for a chimney on the front of the house. Then look for several pointed gables. The gables often have half-timbering, a decorative feature that combines wood and stucco. On this house, we see half-timbering at the second story and in the gable at the far left. The entrance to an English Tudor house is usually arched, and the houses are often made of a combination of materials, usually brick, stone, and wood.

This house represents the wealth and prosperity of America before the depression in 1929.



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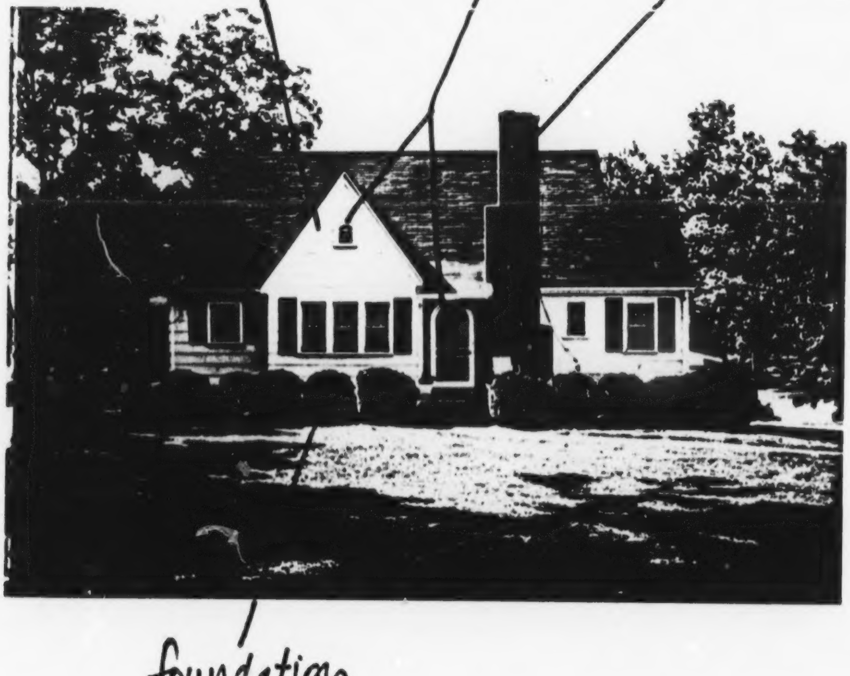
## IV. SLIDE #12

English Revival homes also were built in the form of cottages. Often constructed of brick, they have high pointed gables, arched openings and prominent chimneys. These quaint cottages have irregular shapes. Middle class neighborhoods were filled with English cottage type houses.

Foundation plantings became popular when houses had continuous foundations. This type of landscaping, which blocked air circulation, would not have been used around a pier foundation, as they were designed to allow air circulation under the house.



arched openings

high pointed gable

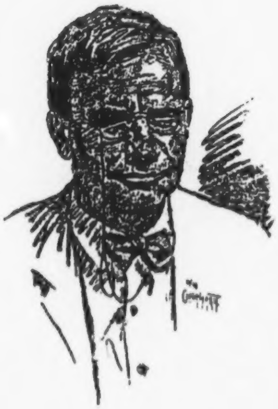
prominent chimney

foundation plantings

## IV. SLIDE #13

The reaction against ornamental Victorian styles of architecture led to the development of two architectural movements: to revive the styles of the past (which we have just studied), and to develop a new philosophy about building. One new philosophy of design was manifested in a new style called the Craftsman style.

The Arts and Crafts movement in America paralleled a similar movement in England which developed as a reaction against machine-made ornamentation. People wanted a return to simpler times when craftsmen worked with their hands. Gustav Stickley, father of the Art & Crafts movement in America, created the Craftsman magazine in 1901. For 16 years the Craftsman published plans for craftsman homes.



CRAFTSMAN
HOMES
Architecture and
Furnishings of the American Arts
and Crafts Movement

by
GUSTAV STICKLEY

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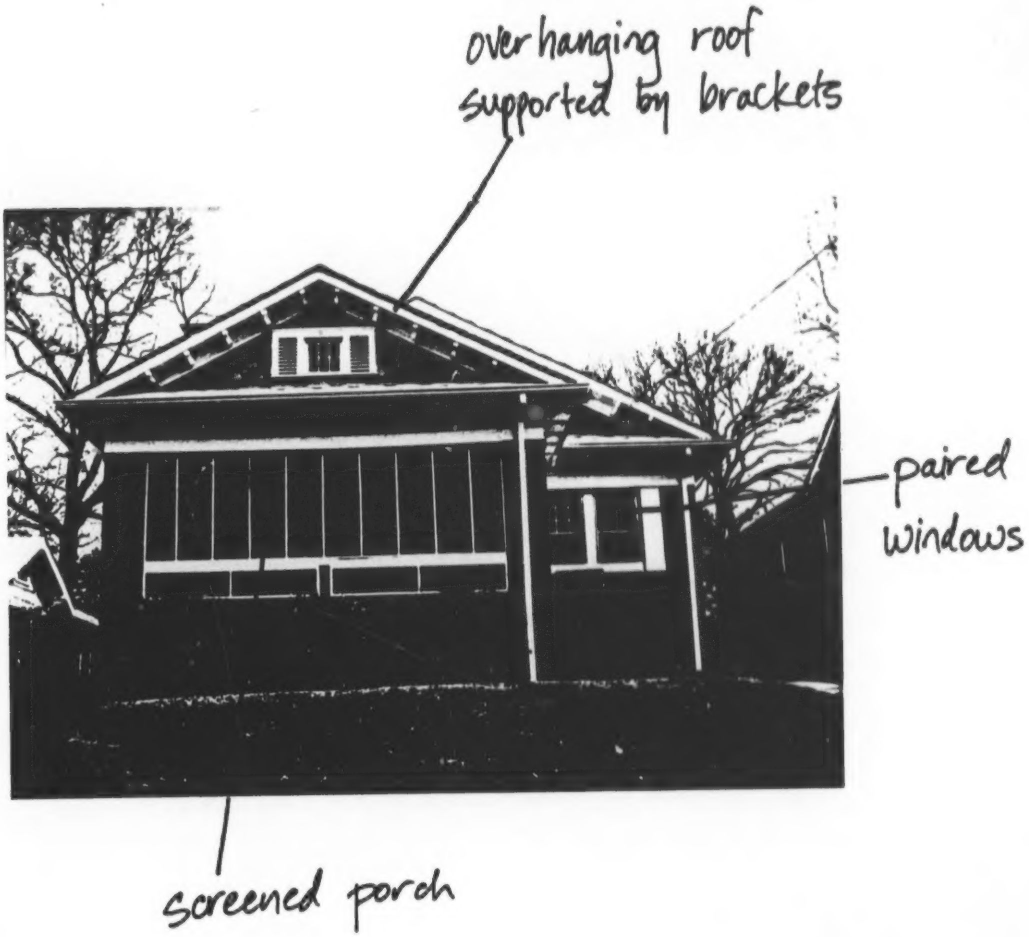
## IV. SLIDE #14

The Craftsman magazine was a catalogue for simple, healthy living. It was a how-to manual for glass-making, book-binding, furniture-making, ceramics, and any number of other arts and crafts. Stickley's furniture designs became so popular that they were reproduced by Montgomery Ward stores. Craftsman furniture, like craftsman architecture, was simple, sturdy and well built and had very little ornamentation. Stickley felt that good materials and structural details were enough ornamentation.

The term bungalow is a corruption of the Hindu adjective Bangia, which means "belonging to Bengal." The British in India used the word to describe a low house with a veranda (porch). In America the term bungalow refers to a simple, low, 1 or 1 1/2 story house with a broad gable facing the road and a front porch.

## IV. SLIDE #15

Craftsman style houses can be identified by their overhanging roofs supported by brackets. Remember that structural details, such as brackets, replaced ornamentation. The porches on Craftsman bungalows are low and wide, with simple square columns on brick or stone piers. Windows are grouped together and often have a single pane of glass in the bottom sash. Screened porches first became popular on Craftman homes.


overhanging roof supported by brackets
paired windows
screened porch

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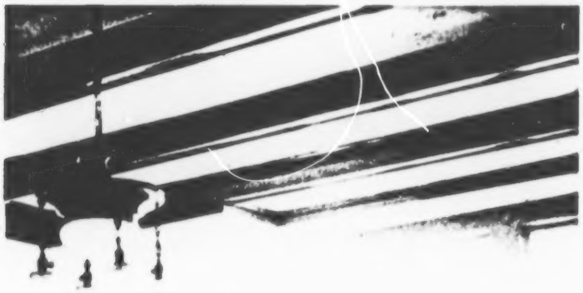
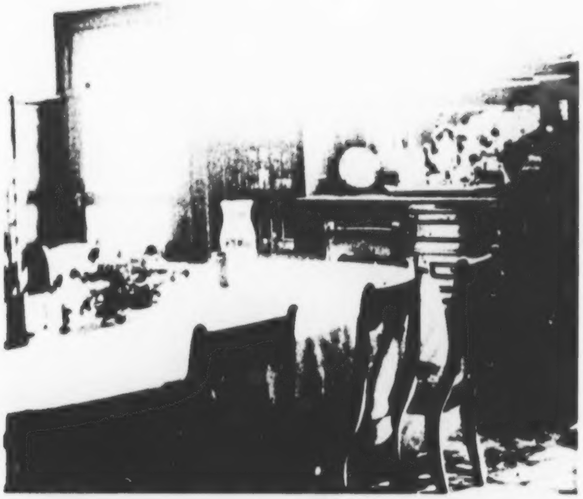
## IV. SLIDE #16

Whereas Victorian homes had many specialized rooms with each serving a different function, craftsman homes had open floor plans with multi-purpose living rooms. Craftsman houses, with their built-in furniture, were designed to be easy to clean.

From 1890-1910, Americans became increasingly concerned with public health. Dark, dusty, rambling Victorian designs were displaced by simpler, more open Craftsman homes. Windows were grouped together in Craftsman homes to admit as much light and fresh air as possible. Magazines noted that houses should be easy to clean and that "a busy woman will say that the home of the future is one which can easily be cleaned with a hose."



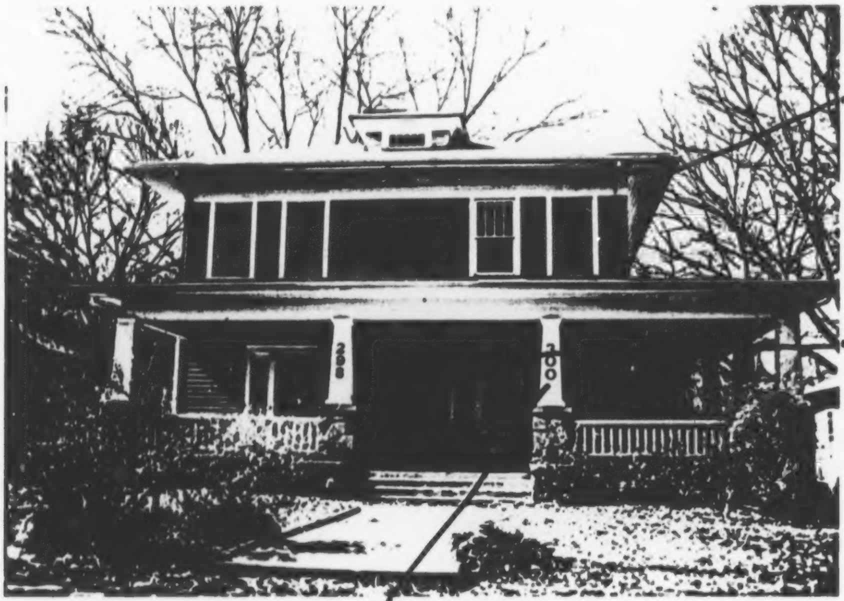


## IV. SLIDE #17

There were numerous bungalow plan books on the market. One of the more amusing titles was: The Bungalow Book, A Short Sketch of the Evolution of the Bungalow From Its Primitive Crudeness to Its Present State of Artistic Beauty.

Whereas a bungalow is defined as a 1 or 1 1/2 story house, a two story craftsman house is called and an American Foursquare. The American Foursquare was a popular home from 1900-1930.

Identify features of the Craftsman style in this slide: Overhanging roof thick columns supported on stone piers, windows grouped together with a plain bottom sash and an ornamental upper sash, decorative structural details.



over-hanging roof

grouped windows

column supported on stone piers

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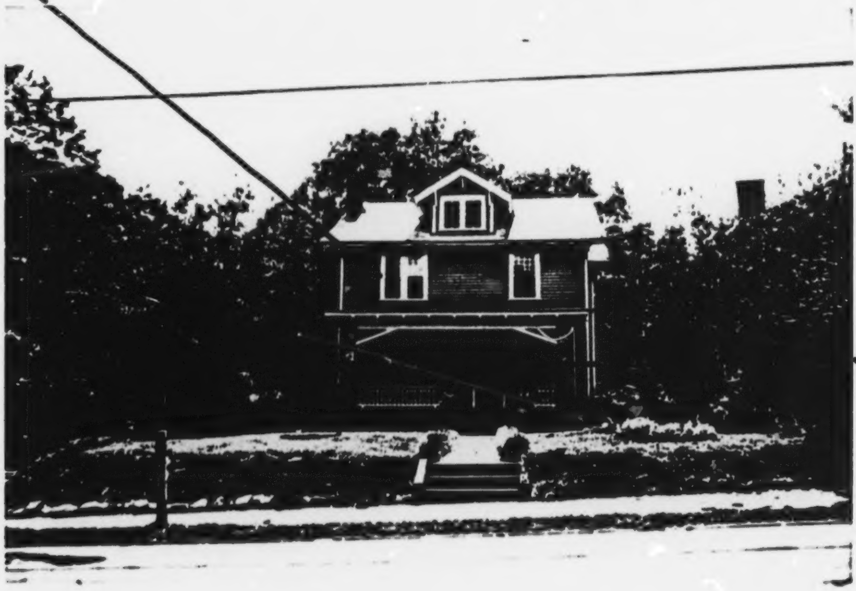
## IV. SLIDE #18

Craftsman style houses can also be two stories tall. This two-story, four-room, square house is another type of Craftsman style house. It is commonly called the American Four-Square. Identify its Craftsman features: Visible structural elements; grouped windows with the upper sash divided and the bottom sash blank; square, stone pier columns.

Sometimes two story craftsman houses are called Prairie style houses. This is due to the popularity of these houses in the prairie lands of the Midwest, where one of America's most well-known architects, Frank Lloyd Wright, practiced architecture. His designs of simple structures that had flat, overhanging roofs, unusual materials, a craftsman's attention to detail, and open floor plans came from the Arts & Crafts movement.



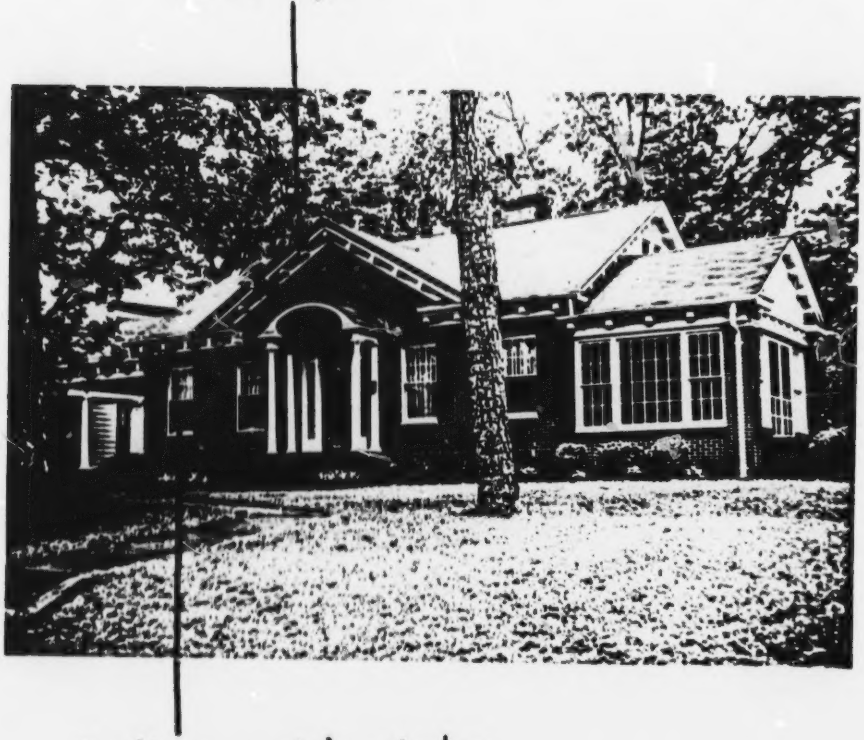
IV. SLIDE #19

This one-story house combines Craftsman and Historical Revival features. What are the craftsman features? Emphasis on structural detail (note the roof supports), and windows with multi-paned upper sashes and single pane bottom sashes.

What are the Historical Revival features? Red brick with white wood work around the door, side porches instead of a front porch.

The low, simple, and sturdy craftsman houses evolved into the Ranch style house, which is commonly found in American subdivisions.

roof support



Craftsman-style window

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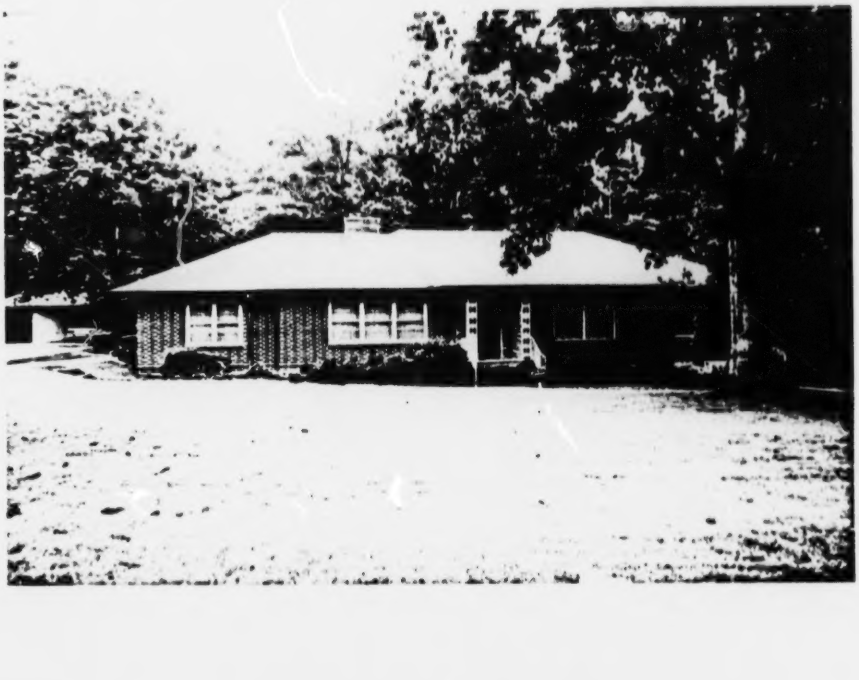
## IV. SLIDE #20

The long and low-lying Ranch style, with its open floor plan, has been a popular American house since the 1950s. These rectangular houses are situated back off the road and have large, grassy front lawns, foundation plantings, and driveways. The garage is usually attached to the house. Instead of a front or side porch, they often have a rear patio. The Ranch style houses are usually made of brick and have very little ornamentation.



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